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Monday, October 03, 2016

Arkansas, Louisiana, New Mexico, Oklahoma, Texas, and 66 Tribal Nations

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1 — EPA's Clean Power Plan Clean, Dallas Morning News, 9/29/2016
http://www.dallasnews.com/opinion/commentary/2016/09/30/epas-clean-power-plan-clean
The United States and China recently ratified the Paris Agreement on climate change, and the Obama administration's contribution was the Environmental Protection Agency's proposed Clean Power Plan. This plan is the largest climate-change regulation ever attempted in the U.S., and its legality is currently being argued before the U.S. Court of Appeals in Washington. Unfortunately, the public seems to know little about the Clean Power Plan, a point brought home to me recently when I spoke about energy to 200 accountants employed by one of the largest accounting firms. When I asked the group how many had heard of the Clean Power Plan, only about 10 people raised their hands

2 — How Louisiana is relocating a community threatened by climate change, Curbed, 9/29/2016
http://www.curbed.com/2016/9/29/13109948/climate-change-refugees-resettlement-louisiana
Isle de Jean Charles, Louisiana, a small coastal island in the Gulf of Mexico, is currently the site of a far-reaching experiment that may shape how the government, at every level, thinks about one of the looming issues of climate change: resettlement. With flooding threatening many parts of the coast, including massive population centers, the question of how the government manages the relocation of its citizens, as well as landmarks and historic sites, takes on added urgency.

3 — BP oil disaster might have hurt Bluefin tuna rebuilding, study says, Times Picayune, 9/30/2016
http://www.nola.com/environment/index.ssf/2016/09/bp_oil_may_have_hurt_bluefin_t.html#incart_river_index
The release of 4 million barrels of oil in the 87 days following the BP Deepwater Horizon explosion in April 2010 occurred just as Atlantic bluefin tuna had returned to the Gulf of Mexico to spawn, and a small but significant percentage of the adult fish and their eggs and larvae were likely exposed to the toxic oil, according to a new study announced Friday (Sept. 30).

4 — EPA set to publish 'exceptional events' guidelines, EE News, 9/30/2016
http://www.eenews.net/greenwire/2016/09/30/stories/1060043701
U.S. EPA is scheduled to publish revisions to its "exceptional events" guidelines in Monday's Federal Register, giving potential challengers 60 days to appeal to the U.S. Court of Appeals for the District of Columbia Circuit. EPA employees had publicly posted the revisions Sept. 19, some 10 months after putting a draft version out for public comment.

5 — Texas Sees Gloom and Doom by Cutting Greenhouse Gases, Houston Public Radio, 9/28/2016
http://www.houstonpublicmedia.org/articles/news/energy-environment/2016/09/28/171568/texas-sees-gloom-and-doom-by-cutting-greenhouse-gases/
The Texas Senate's Natural Resources Committee took testimony Wednesday about what impact Texas might feel from new, federal rules aimed at slowing climate change. The rules by the U.S. Environmental Protection Agency would reduce greenhouse gases that cause global warming: gases like carbon dioxide from coal-burning power plants and methane from oil & gas well operations.

6 — Threatened by Sprawling Houston, Wetlands Will be protected by Oil Company's Gift, Houston Public Media, 9/29/2016
http://www.houstonpublicmedia.org/articles/news/2016/09/29/171675/threatened-by-sprawling-houston-wetlands-will-be-protected-by-oil-companys-gift/
Drive south from Houston down highway 288 and you will pass thousands of new homes. But about half-way to the coast, you'll also pass some of the most environmentally valuable forests, prairies and wetlands anywhere in Texas. "That's pristine land," says Steve Pastor.

7 — $515,000 Westwego levee lift planned for October, 9/29/2016
http://www.nola.com/environment/index.ssf/2016/09/levee_authority_aims_to_lift_w.html#incart_river_index
Starting in October, the hurricane levee in Westwego near Bayou Segnette will be raised by average of two feet at a cost of almost $515,000. The Southeast Louisiana Flood Protection Authority-West awarded the contract Wednesday (Sept. 28) to Durr Heavy Construction. Authority members stress that raising the levee will maintain the West Bank and Vicinity Hurricane Protection Project's accreditation with in the National Flood Insurance Program. That keeps flood insurance premiums from rising and, in some cases, could reduce premiums, they said.

8 — OPEC'S CUTTING PRODUCTION. WHAT DOES THAT MEAN FOR TEXAS OIL?, Texas Standard, 9/30/2016
http://www.texasstandard.org/stories/categories/energy-environment/
For the first time in nearly a decade, a cartel which brought the U.S. to its knees decades ago appears to have cried uncle. It's a struggle that in many ways has pit the Middle East against Texas – or, from another perspective, vice versa. When the shale revolution took off in Texas not that long ago, so did fortunes from it. Oil rose to historic highs – well over a hundred dollars a barrel. But all that oil in the market created a glut. Too much supply for the demand – and so began the great downturn.

9 — As pipeline projects grow, so do protests, PBS News Hour, 10/1/2016
http://www.pbs.org/newshour/rundown/pipelines-proliferate-protests/
Hundreds of miles from the North Dakota pipeline protests that garnered headlines earlier this month, a woman in Iowa stood in her soy bean field, trying to block industrial mowers about to cut down her crops.

10 — Matthew strengthens into Category 2 hurricane: NHC, Reuters, 9/30/2016
http://www.reuters.com/article/us-storm-matthew-hurricane-idUSKCN11Z2N1
Hurricane Matthew has strengthened into a Category 2 hurricane on the Saffir-Simpson Wind Scale, the U.S. National Hurricane Center (NHC) said on Friday. Hurricane Matthew was about 565 miles (910 km) east-southeast of Kingston Jamaica with maximum sustained winds of 100 miles per hour (155 km/h), the NHC said.

11 — Video: Dashcam footage shows Camp Minden blast that lit up sky Thursday morning, Advocate, 9/29/2016
http://www.theadvocate.com/baton_rouge/news/article_0fc1376a-8642-11e6-a733-6bf18ab392a6.html?utm_medium=social&utm_source=twitter&utm_campaign=user-share
Louisiana State Police released dash cam footage of the explosion at Camp Minden Thursday morning. In the video, a large flash can be seen appearing in the distance as the bunker where M-B propellant exploded.

12 — Notices for last $520M in BP spill seafood claims out next week, Times Picayune, 9/29/2016
http://www.nola.com/environment/index.ssf/2016/09/notices_for_last_520_m_in_bp_s.html#incart_river_index
Claimants in line to collect the last $520 million of $2.3 billion in seafood claims money stemming from the BP oil spill will receive notices that their payments are ready next week, court-appointed private claims administrator Patrick Juneau announced Thursday (Sept. 29). Another five categories of private claims, totaling $454 million, are also near completion, Juneau said.

13 — 22 of America's Biggest Air Polluters, Ecowatch, 9/30/2016
http://www.ecowatch.com/america-super-polluters-2022829849.html
To see one of the country's largest coal-fired power plants, head northwest from this Ohio River city. Or east, because there's another in the region. In fact, nearly every direction you go will take you to a coal plant—seven within 30 miles. Collectively, they pump out millions of pounds of toxic air pollution. They throw off greenhouse gases on par with Hong Kong or Sweden.

14 — Farmers still feeling effects from Gold King Mine spill, KOB, 9/29/2016
http://www.kob.com/new-mexico-news/farmers-still-feeling-effects-from-gold-king-mine-spill-animas-river-epa-reimbursement/4278910/
More than a year after the Gold King Mine Spill, there are still wide-reaching effects being felt, specifically to farmers who had water cut off before the crops could mature and who are still afraid to use the water. “I didn't harvest anything, as you saw, my corn got so small, that was as big as it got I never got any full corn , no melon, no squash, I lost everything last year,” said Earl Yazzie, who has farmed about 11 acres in Shiprock most of his life.

15 — Texas activists who lost one pipeline fight set sights on new battle, 9/29/2016
https://www.theguardian.com/us-news/2016/oct/01/texas-dakota-access-pipeline-trans-pecos
It looks to Lori Glover “like a long snake going across the whole desert”. For David Keller, it is “like having a very beautiful historic home and having someone run a bulldozer through the kitchen”. And in Yolonda Blue Horse’s view, it is another example of disrespect from an industry that does not care about native people.

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Scott Tinker, Contributor

Scott Finkel, Contributor

The United States and China recently ratified the Paris Agreement on climate change, and the Obama administration's contribution was the Environmental Protection Agency's proposed Clean Power Plan. This plan is the largest climate-change regulation ever attempted in the U.S., and its legality is currently being argued before the U.S. Court of Appeals in Washington.

Unfortunately, the public seems to know little about the Clean Power Plan, a point brought home to me recently when I spoke about energy to 200 accountants employed by one of the largest accounting firms. When I asked the group how many had heard of the Clean Power Plan, only about 10 people raised their hands.

The plan is being promoted as a means to accelerate a shift away from carbon dioxide-generating electricity fuels such as coal, oil and natural gas to lower CO_2-generating sources such as wind and solar.

The EPA's website clearly states the overarching goal: "Nationwide, by 2030, the Clean Power Plan will help cut carbon emissions from the power sector by 30 percent from 2005 levels, while starting to make progress toward meaningful reductions in 2020."

Regardless of your perspective on climate and carbon dioxide, or on the legalities of the plan, it is valuable to examine some basic facts: The year 2005, the base year of the Clean Power Plan, is essentially tied with 2007 for the highest year of CO_2 power-sector emissions in the U.S. at about 2,400 million metric tons. The 2030 emissions goal is a 30 percent reduction from 2005, or roughly 1,680 million metric tons.

In 2015, U.S. power sector emissions were 1,900 million metric tons, already a 20 percent reduction from 2005. In fact, from 2005 to 2015, the U.S. reduced CO_2 emissions more than any other major economy in the world.

In other words, by 2015, we had already reduced emissions by 20 percent *without* a Clean Power Plan or government carbon price signal. Not only does the 30 percent goal in the plan not seem very ambitious, it appears misleading to trumpet a 30 percent target when 20 percent has already been achieved.

The 20 percent reduction in CO_2 emissions from 2005 to 2015 happened in three ways: renewable energy such as hydroelectric, wind and solar increased; the recession dampened energy demand; and the use of natural gas nearly doubled, which had the biggest impact. Natural gas grew quickly because hydraulic fracturing (fracking) of shales created new supplies, causing natural gas prices to plummet.

If the pace of CO_2 reduction from 2005 to 2015 continues to 2030, CO_2 emissions would be around 1,300 million metric tons, a 45 percent reduction from 2005 and substantially lower than the goals of the Clean Power Plan.

Confused? So am I. Why push for a Clean Power Plan if we are already two-thirds of the way there and headed — without federal intervention — lower than the ultimate goal of the plan?

As with most things in energy, there are politics involved. Take the proposed EPA rate-based CO_2 reduction burdens recommended by the Clean Power Plan for each state. If you arrange the states from left to right on a graph, you'll see that the half on the left with the smallest proposed CO_2 reduction burden voted 75 percent Democrat in the 2012 presidential race, and the half on the right with the greatest burden voted 66 percent Republican.

We should not judge political motivation or intention, but we do need to look at actual outcomes. Government carbon dioxide interventions have not worked very well in other countries, and in fact they have often had the opposite effect on actual CO_2 emissions. In contrast, the U.S has made great progress thus far, even if not orchestrated, without federal policy or agency rules.

Back in the early 2000s, the Kyoto Protocol, a precursor to the Paris Agreement, set out a similar goal, but in fact had the reverse impact: CO_2 emissions in developed nations remained essentially flat, but emissions in developing nations increased sharply.

Nonetheless, some still argue the Clean Power Plan is needed, perhaps on philosophical or moral grounds. But if the goal is actual reductions in CO_2 emissions, the road to green is not always a federal highway.

Scott W. Tinker is the state geologist of Texas, the director of the Bureau of Economic Geology and the Allday Endowed Chair in the Jackson School of Geosciences at the University of Texas at Austin. Email: scott.tinker@beg.utexas.edu

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URBAN PLANNING

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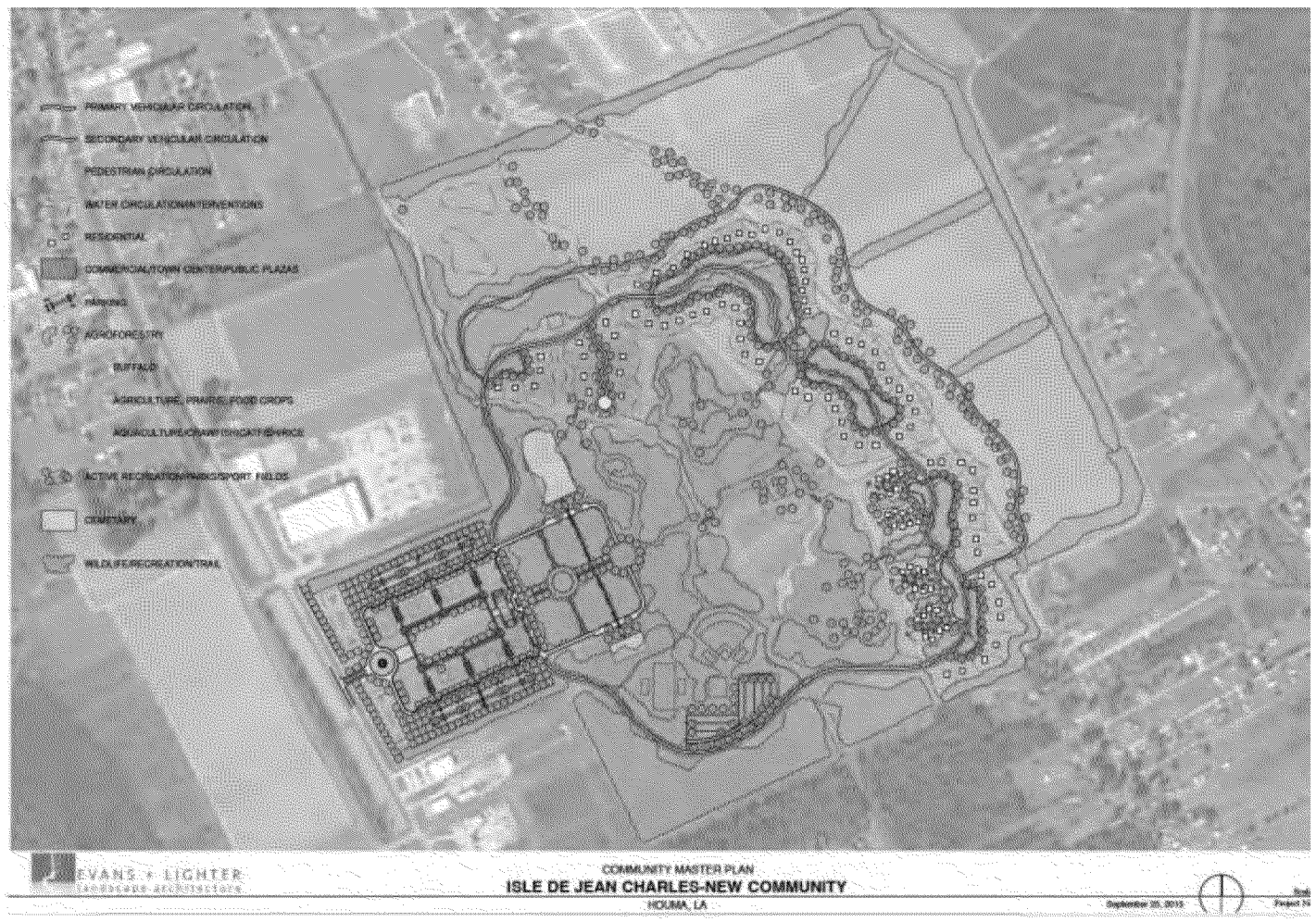
How Louisiana is relocating a community threatened by climate change

An unprecedented move on the Gulf Coast may form the blueprint for a looming, 21st century challenge

BY PATRICK SISSON · @FREQRESPONSE · SEP 29, 2016, 1:51P

This Sept. 29, 2009 photo shows people who are renting the house move an appliance into the home on Isle de Jean Charles, La. (AP Photo/Bill Haber)

Isle de Jean Charles, Louisiana, a small coastal island in the Gulf of Mexico, is currently the site of a far-reaching experiment that may shape how the government, at every level, thinks about one of the looming issues of climate change: resettlement. With flooding threatening many parts of the coast, including massive population centers, the question of how the government manages the relocation of its citizens, as well as landmarks and historic sites, takes on added urgency.



Isle de Jean Charles proposed community master plan

The island, which has lost 98 percent of its landmass to flooding since 1955, became a testing ground for new approaches to resettlement due to the $1 billion National Disaster Resilience Competition, a government contest that funded 13 test programs across the

resettlement plan for those living on the vanishing island, an unprecedented move.

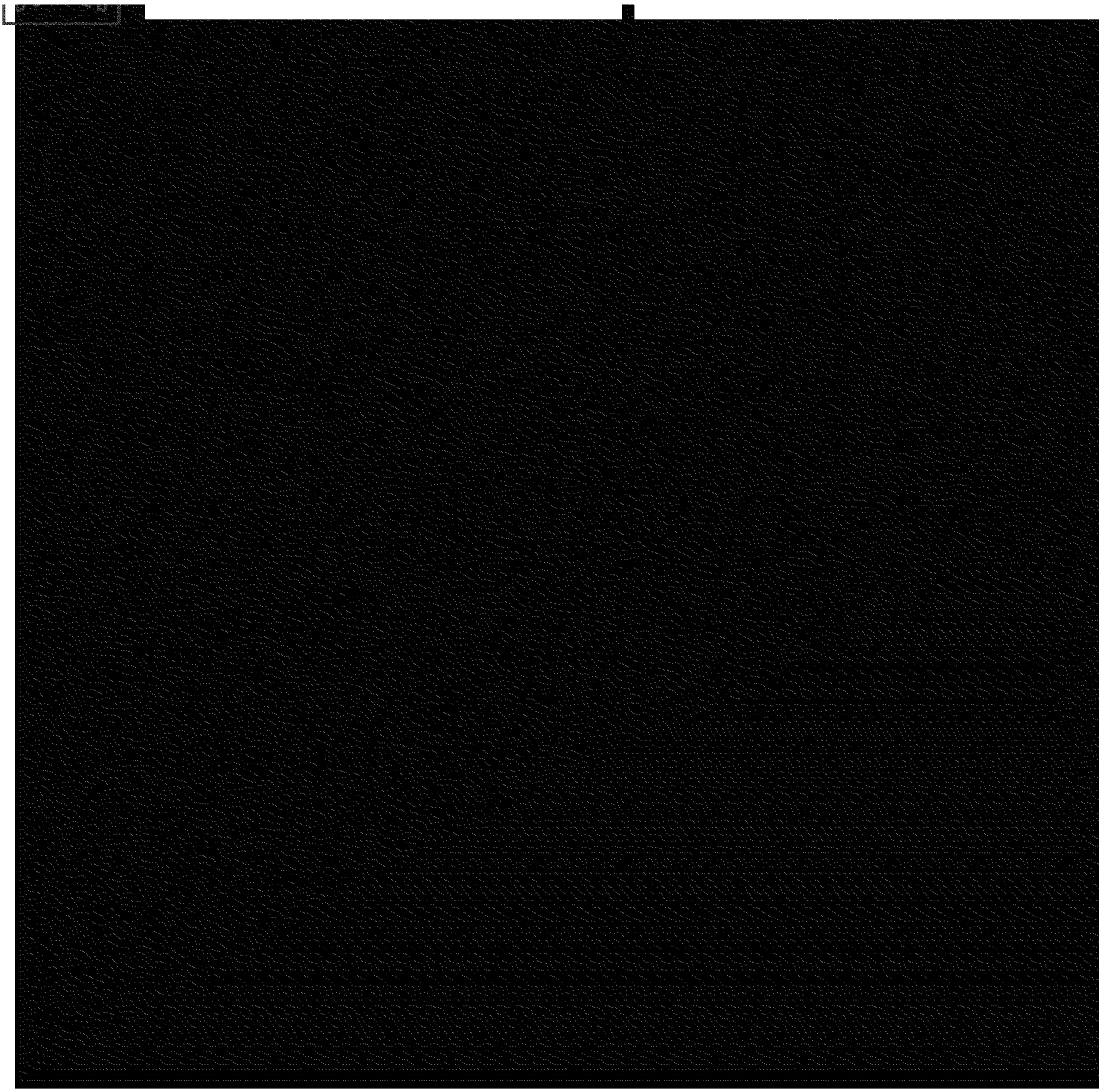
The 400 residents directly affected by the rising seas around Isle de Jean Charles are mostly Native American members of the Biloxi-Chitimacha-Choctaw tribe (as well as some members of the United Houma Nation, and unaffiliated Native Americans). While the first priority is to get everyone out of harm's way—they will potentially be resettled inland at a site in nearby Houma, Louisiana—the relocation must also address the bigger questions of community design, ownership, and what happens to the island being left behind. Many have tossed around the term "climate refugees," but the state prefers to think of this move as an "organized, reasoned retreat from a coast that is going away," according to the Louisiana Disaster Recovery Unit.

The process of determining how, and exactly where, that move will happen, and how the island will be preserved, isstill being figured out. Funds have been allocated until 2022, and while state leaders don't expect it to take that long, the extended timeline reflects the difficulties ahead.

"Our work is to make sure those whose properties are in the pathways of this environmental degradation can have a brighter future," says Matthew Sanders, Policy Advisor for the state's Office of Community Development.

Curbed spoke with Sanders and Pat Forbes, Executive Director of the Louisiana Office of Community Development, to learn how state planners are formulating a plan that could become a blueprint for coastal communities across the country, one that maintains connections to the water, yet recognizes its power to displace and disrupt.

"That's where the tension lies," says Forbes. "You want to be close, but you want to be safe."



Changing the calculus of coastal moves

One of the key issues at stake is how to facilitate a move that alters traditional financial dynamics that make it difficult to leave coastal areas. "Normally, someone would be offered fair market value for their property, and then it becomes green space," says Sanders. "But, this then creates a burden on local government, which has to manage the property, and fair market value doesn't really work, since if people know the area is under threat, sellers won't get enough to start a new life elsewhere."

convince people to abandon their homes. Their goal with this process would be to create a new model with good options that can work for other coastal communities.

"We understand it's a working coast," Sanders says about Louisiana, a point that could be applied anywhere. "We can't retreat from it wholesale. We need to determine the areas we really need to preserve, and the ones that we need to move to higher and drier ground."

Rainforest Action Network : Flickr/Creative Commons

Putting a focus on the data to give residents a real choice

Louisiana was, in many ways, the obvious choice for this experimental program because the state has witnessed coastal erosion for decades. As Forbes says, for people living in the Mississippi Delta, which has seen the coast recede their entire lifetime, change isn't all that rapid.

Since Hurricane Katrina, the state's Coastal Protection and Recreation Authority has embarked on detailed analysis and created extensive maps and models of coastal erosion, providing local governments and property owners with accurate, actionable data to make big decisions about risk and relocation. With better coastal surge modeling data than anywhere else in the country, Louisiana can project risk out 50 years, making it easier to determine which communities may need to be relocated.

"We're not a state that will ever walk into a community and say, 'you need to move,'" says Sanders. "We believe that people with good options and good information make good decisions."

Creating a cultural survey and oral history of the community

Sanders and Forbes say that they don't really know what the plan will look like because it's based on extensive community feedback, which they're just beginning to collect.

"Everything we do needs to be done through a participatory planning process," says Sanders. "It's driven by the people living at this particular settlement."

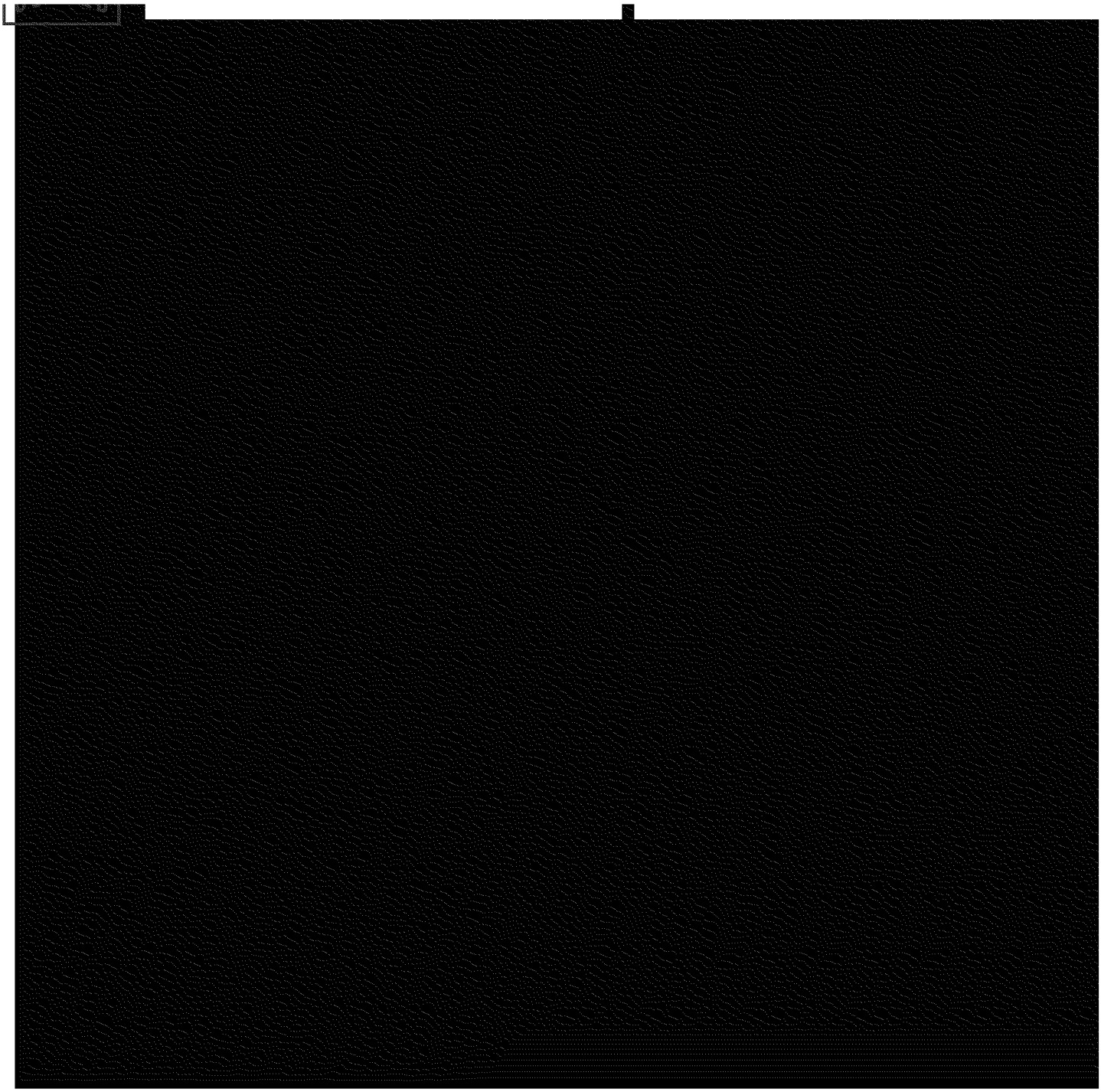
The plan is vast. Right now, the state is focusing on initial outreach and needs assessments and taking a survey of the island. After that's completed, they'll bring in a planning team to interpret the data and make recommendations for the move. It may be 12 to 18 months before they're at a place where they can put a shovel into the ground.

The final survey will include cultural and economic overviews and a detailed map utilizing ArcExplorer, a tool that lets researchers tag photos to specific geographic

in their new homes.

If this sounds like a massive oral history project, that's because it is. Sanders says discussions about the concept of cultural transfer are common, and they foresee scenarios where they take what they learn about local history and memorialize within the new community.

"It really does become part and parcel of our job," says Forbes. "It's important to get a community safely moved, and we're obligated to preserve the culture of the community. Resilience is tied to cohesiveness, so we want to carry those aspects to the new community as explicitly as possible."



An overhead shot of the Isle de Jean Charles from 2010
Gulf Restoration Network : Flickr / Creative Commons

Devising a plan for landmarks, cu ltu ral markers, and commu nity h istory

If devising a new housing plan for those living on the island is a challenge, then imagine the complications that come from preserving irreplacable landmarks.

"One of the things that has prevented residents from moving in the past is their

have said they want to leave ancestors where they were buried, while others have suggested that moving their remains would be more appropriate.

According to Stephanie Meeks, the President and CEO of the National Trust for Historic Preservation, her organization and others like it have just begun to grapple with the challenges facing coastal communities nationwide. Preservationists are exploring ways to flood-proof buildings, as well as considering ways to move fragile landmarks, or even lift structures on hydraulic lifts (a strategy discussed for Mies van der Rohe's Farnsworth House in Illinois).

"Given the extent of coastal flooding, there may be things we need to let go of, which is a tough thing to wrestle with," says Meeks. "But we're in a good position now to help communities save what they can and memorialize what they can't."

These decisions will be local matters, and Forbes hopes that their work in Isle de Jean Charles can help create a toolbox that can be applied to the myriad communities that will begin to face their own unique climate challenges in the decades ahead.

"As much as we would like to be creating a model that's applicable everywhere, every single community is going to be unique," he says. "We're moving a small, tight-knit group, and there's not a lot of businesses on the island. That won't be the case for communities with a different makeup."

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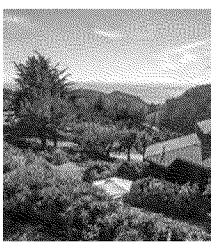

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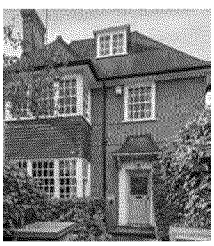

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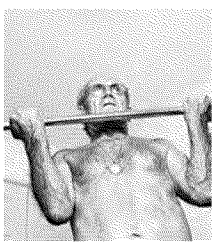

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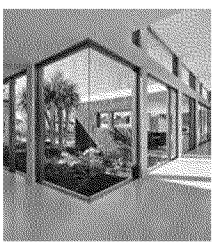

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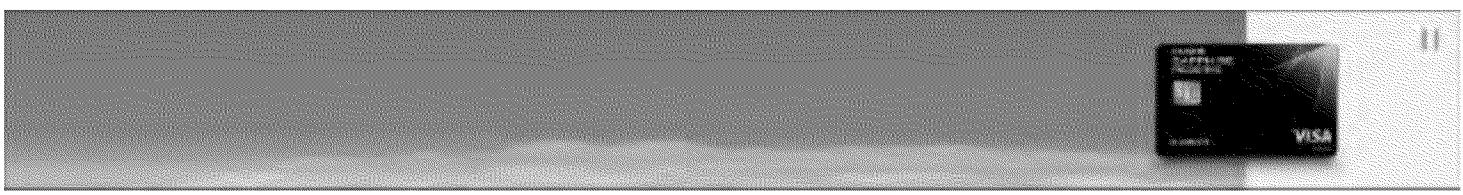


BP oil disaster might have hurt Bluefin tuna rebuilding, study says

By Mark Schleifstein, NOLA.com | The Times-Picayune
Email the author | Follow on Twitter
on September 30, 2016 at 8:34 PM, updated October 02, 2016 at 12:01 AM

The release of 4 million barrels of oil in the 87 days following the BP Deepwater Horizon explosion in April 2010 occurred just as Atlantic bluefin tuna had returned to the Gulf of Mexico to spawn, and a small but significant percentage of the adult fish and their eggs and larvae were likely exposed to the toxic oil, according to a new study announced Friday (Sept. 30).

The study led by scientists with NOAA's National Marine Fisheries Service and Stanford University concludes that the oil cumulatively covered 3.1 million square miles where fish, eggs and larvae were present in the weeks immediately after the accident.

Gulf oil spill resource study shows extensive damage

4 years after BP, scientists struggle with effects

When combined with other stressors affecting this species of tuna—including overfishing and warming seas caused by climate change—the addition of the oil's impact "may result in significant effects for a population that shows little evidence of rebuilding," the study published in Nature: Scientific Reports concluded.

The study, funded by the Natural Resource Damage Assessment for the BP spill required under the federal Oil Pollution Act, made use of computer modeling based on information gathered from 16 years of electronic tagging of 66 tuna that kept track of individual fish locations, temperatures and oscillating diving patterns. The information was compared with satellite observations of the breadth of oil from the spill on the surface of the Gulf to estimate the potential impacts.

Barbara Block, a Stanford professor of marine scientists and expert on Atlantic bluefin tuna, said in a Friday interview that the tagging program took advantage of earlier tagging information that indicated many of the Gulf-spawning tuna migrate back and forth from the Gulf of St. Lawrence in Canada. Researchers captured adult tuna in Canada and installed the tags. When the fish returned to Canada a year later, the tags dropped off and were collected, and their data was added to a long-term database on fish movements.

The information collected from the tags helped the scientists confirm their theories about the spawning habits of the huge fish, which can weigh as much as 1,000 pounds at maturity, and begin reproducing about 10 years after birth.

Information from the tags of individual fish showed them making oscillating dives up and down, over and over in the Gulf.

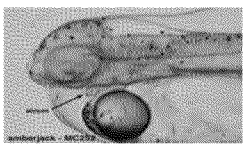
While there was no data from tags making the dives act exactly the same time, that behavior was similar to what's known about tuna mating.

"We've seen tuna spawn in captivity in tanks, and they look like Blue Angel fighter jets, working closely together during an acrobatic maneuver," Block said. And the active behavior also produces warmer temperatures that also were picked up by the tags, similar to the overheating that occurs when humans mate, she said.

"We use that environmental data to tell us what is the overlap of the oil spill's data and the predicted spawning area," she said. "We learn there's no question some of the oil came together with the spawning habitat, with the eggs and larvae.

"When you spawn in oil, we have previous papers that suggest that may not be a good thing for egg or larvae," Block said. "Oil is a cardiotoxin and we know the crude oil from the Deepwater Horizon oil spill caused such effects, from the PAH (polycyclic aromatic hydrocarbons) causing morphological and physiological dysfunction."

Block was one of the authors of a 2014 study that tested the effects of BP oil on yellowfin tuna and amberjack in laboratory experiments. The study showed the oil caused deformed hearts and hearts that did not beat properly in recently hatched larvae.



oil spill linked to heart defects in tuna, amberjack

The new research indicates that the oil covered a relatively small percentage of the U.S. portion of the Gulf that serves as the tuna's spawning ground, about 5.5 percent, and even less of the total Gulf, about 2.6 percent. But when the data from the tags is modeled to show how fish, eggs and larvae move through that area, it results in the larger, cumulative impact.

The study shows that the Bluefin tuna actually enter the Gulf as early as November and some don't leave until late July. Spawning, however, begins on April 1 and ends on June 28, with the peak occurring between April 15 and May 20.

And while the tuna traveled throughout the Gulf during the entirety of their stay, during the spawning period, they stay in the northern Gulf near where the shallower water bottom slopes into the deep Gulf.

Individual tagged fish stay in the Gulf for more than a month, said Elliott Hazen, a research ecologist with the National Marine Fisheries Service's Southwest Fisheries Science Center in Monterey, Calif., and lead author of the paper.

The tags show that the fish avoid the deep, warm Loop Current, a piece of the Gulfstream that breaks off and floats into the Gulf every year or so, he said. The Loop Current could sweep eggs and larvae out into the Caribbean and Atlantic Ocean, he said, where they'd be more in danger. A Loop Current was present in the Gulf just east of the BP Macondo well in April 2010.

But the fish also prefer to lay their eggs into smaller eddies the circular patterns in the water in hopes that they'll be held in the Gulf longer.

"There's no way we're claiming the oil spill has caused the collapse of bluefin tuna, but this paper is highlighting that a species of huge ecological and economic importance to us has another chip stacked against it," Hazen said.

Block said the problem she and other scientists are facing is identifying the "year class" of bluefin from 2010 that should enter the fishery in 2017 and first spawn in 2020, as well as how to track their eggs and larvae.

"The bluefin tuna population in the Gulf of Mexico has been struggling to rebuild to healthy levels for over 30 years," Block said in a news release announcing the study. "These fish are a genetically unique population, and thus stressors such as the Deepwater Horizon oil spill, even if minor, may have population-level effects. It is difficult to measure recruitment from the Gulf of Mexico post-2010, as the fish take a long time to enter into the commercial fishery where monitoring occurs, so we remain concerned."

"My dream is to know when a tuna egg is in the Gulf of Mexico, if it is a bluefin, and if it's an egg in clean ocean waters," she said. To find that out likely will take a new generation of robotic oceanographic monitoring equipment, "mounted on surface gliders and automated underwater vehicles that could monitor the Gulf and tell us if it were oil free, if the temperature were not too hot, and, a little harder, to pick up a tuna egg and identify it as a bluefin rather than a blackfin tuna, and count how many are there," she said.

She estimated developing such monitoring equipment could take as little as $2 million over two years, money that might come from funds BP has made available for deepwater research as part of its $8.8 billion Natural Resource Damage Assessment payment, part of an April settlement with federal, state and local government officials over damage caused by the spill.

The data such monitors collect will be important to Louisiana long-line fishers who are seeing reductions in allowed catch of other species, such as yellowfin tuna, because Bluefin tuna are often accidentally caught on their lines, and there's such a concern over the Bluefin's future in the aftermath of the spill, she said.

Additional co-authors of the research paper include Aaron B. Carlisle, James Ganong, Rob Schallert and Steve Wilson of Stanford; Michael J.W. Stokesbury of Acadia University; and Steven J. Bograd of NOAA Fisheries' Southwest Fisheries Science Center.

This story has been corrected to show that only individual tagged fish, not pairs, were tracked making up and down dives indicative of mating, and that the year class of fish from 2010 will enter the fishery in 2017 and first spawn in 2020.

AIR POLLUTION:

EPA set to publish 'exceptional events' guidelines

Sean Reilly, E&E reporter
Published: Friday, September 30, 2016

U.S. EPA is scheduled to publish revisions to its "exceptional events" guidelines in Monday's Federal Register, giving potential challengers 60 days to appeal to the U.S. Court of Appeals for the District of Columbia Circuit.

EPA employees had publicly posted the revisions Sept. 19, some 10 months after putting a draft version out for public comment.

The rules are intended to spell out the conditions under which states can effectively get a pass for air pollution violations stemming from wildfires, stratospheric ozone intrusions and other forces outside their control. States had complained that the current application process, dating to 2007, is costly and cumbersome.

While the National Association of Clean Air Agencies, which represents the bulk of state air pollution regulators, has said that the new guidelines contain "significant improvements," industry and environmental groups have voiced objections. In the latter camp, the Natural Resources Defense Council has already said that it is considering a lawsuit (Greenwire, Sept. 19).

Twitter: @SeanatGreenwire | Email:sreilly@eenews.net

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Dave Fehling | Houston Public M

Gas well near subdivision in Katy

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The TexasSenate's NaturalResources Committee took testimonyWednesday about what impact Texas feel from new, federal rules aimed at slowing climate change.

The rules by the U.S. EnvironmentalProtection Agency would reduce greenhousegases that cause globa warming: gases like carbon dioxide from coal-burningpower plants and methane from oil & gas well operations. Texas'senergy industries are major sources of those gases. The rules are being challenged i federal court.

Republicans worried the rules would drive up costs and hurtindustries that are heavy users of electricity. S Robert Nichols, a Republican from East Texas, said if closing coal-burningpower plants caused electricit to jump, that would cripple factories in his district.

"I can guarantee you I will lose thousandsof jobs in my district if that occurs," Sen. Nichols said.

Oil & gas industryrepresentativestestified that the industryhas already done plentyto cut methane leaks well sites and said the new rules were part of effort by the Obama administration to shut down the oil indu Ed Longanecker with the TexasIndependentProducers & RoyaltyOwners Association gave the committe lengthylist of federal environmentalregulations the industryapparentlyfound onerous.

Democratic Senator Carlos Uresti from San Antonio, asked Longanecker: "Are there any regulations on t you think we should comply with?" Longanecker: "I would have to go throughthe list to give you an accurat

answer sir."

Environmentalgroups testified that the industryis greatly exaggerating the cost of the new rules which the were effective ways to stop the worst effects of climate change.

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Based in the world's energy capital, broadcast and digital journalist Dave Fehling is heard public radio stations in Houston and throughout Texas, reporting on the oil & gas industry impact on the environment. After nearly three decades in television that included reporting CBS News, Fehling joined...

More Information

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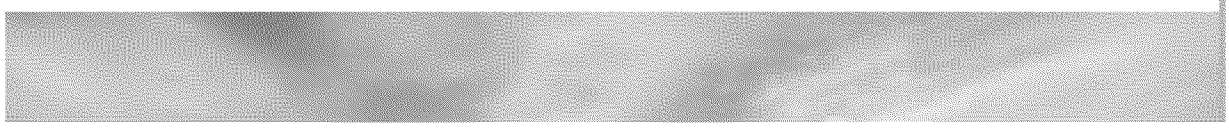

Jerod Foster, Nature Conserv

A prairie that is part of 1,800 acres purchased for conservation

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Drive south from Houston down highway 288 and you will pass thousands of new homes.

But about half-way to the coast, you'll also pass some of the most environmentally valuable forests, prairie wetlands anywhere in Texas.

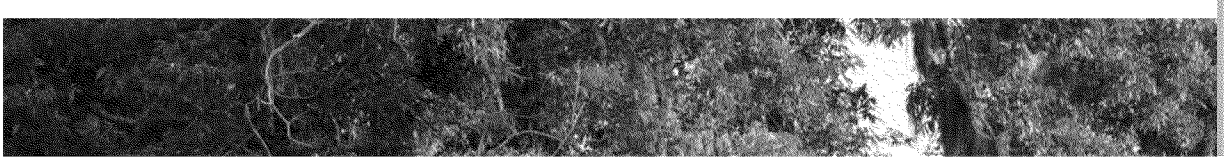
"That's pristine land," says Steve Pastor.

Pastor is president of BHP Billiton's oil operations based in Houston. BHP Billiton is an international min company headquartered in Australia.

"Clearly as Houston continues to grow, you've got folks moving out to the southwest. We want to make sur did our part to protect that for future generations," Pastor tells News 88.7.

To that end, BHP Billiton is giving $8 million to buy 1,800 acres of that pristine land in Brazoria County. It's project by the Nature Conservancy, a national land and water conservation group. Laura Huffman is the gr Texas director.

"This is not going to be a preserve that's closed off. This is going to be a preserve that we want to showca says Huffman.



Jerod Foster, Nature Conserv

The newly-acquired acreage is part of the Columbia Bottomlands Project

She says work is underwayto build a pavilion so busloads of kids can see the flora and fauna up close. B just a start. Huffmansays they have a goal of securing some 36,000 more acres in the area to ensure the delicate habitat is permanentlyprotected from development. But she says that'll only happen with more pr funding.

"This is a large gift (from BHP Billiton) that allowed us to achieve large scale conservation. And that would the encouragementto other companies, think about this at scale. "

The project is officially called the Columbia Bottomlands Project and should be open to the public in abou years.

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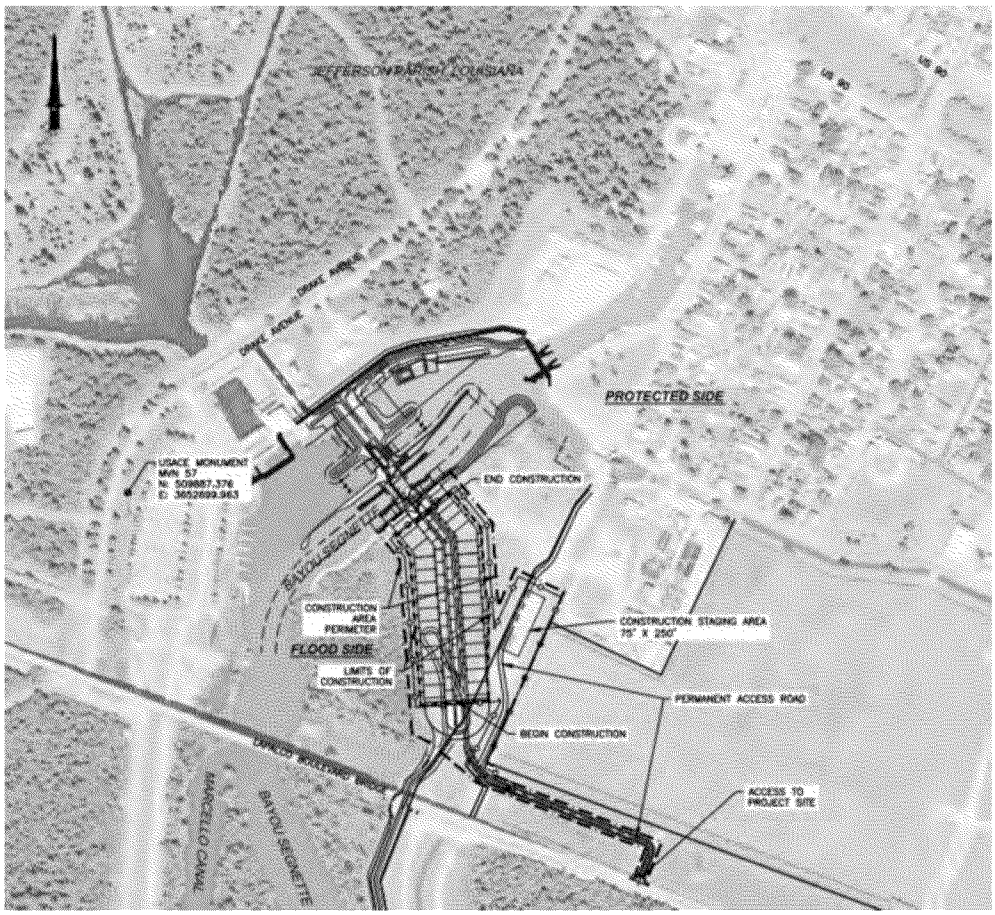
$515,000 Westwego levee lift planned for October



In this map, officials detail the work required to lift the levee system in Westwego near Bayou Segnette. (Southeast Louisiana Flood Protection Authority-West)

By Wilborn P. Nobles III, NOLA.com | The Times-Picayune
Email the author | Follow on Twitter
on September 30, 2016 at 3:20 PM, updated September 30, 2016 at 3:31 PM

Starting in October, the hurricane levee in Westwego near Bayou Segnette will be raised by average of two feet at a cost of almost $515,000. The Southeast Louisiana Flood Protection Authority-West awarded the contract Wednesday (Sept. 28) to Durr Heavy Construction.

Authority members stress that raising the levee will maintain the West Bank and Vicinity Hurricane Protection Project's accreditation with in the National Flood Insurance Program . That keeps flood insurance premiums from rising and, in some cases, could reduce premiums, they said.

"This will be flood authority's first construction project in over 20 years," regional director John Monzon said. The flood authority was created in 2006, after Hurricane Katrina, to take over the West Jefferson Levee District and the Algiers portion of the Orleans Levee District.

The West Bank and Vicinity Project is intended to shield the most populous parts of West Jefferson, Algiers, Belle Chasse and west St. Charles Parish from storm surge. The Army Corps of Engineers spent almost $1.4 billion on the system in 2014.

East Jefferson lakefront levee lift to begin in October

The corps plans to "armor" the levees, to make them resilient against topping from storm surge. This will involve covering the levees with a geo-synthetic product to keep them from washing away.

But the levees have naturally settled into the ground by three feet since 2014. So the flood authority wants to raise the Westwego levee before it is armored.

Flood authority officials say they must use local money to raise and armor levees every decade for 40 years. The initial armoring is fully paid by the corps, however. Authority members estimate raising all West Jefferson levees will cost $16 million.

Commissioner Michael Merritt voted against awarding the contract to Durr. He said he objected because Monzon told him that the corps did not report on engineering alternatives on the project. Monzon said such a report was not required.

Algiers property owners to get separate levee millage bill

Merritt also asked whether any site geology report was written, to ensure the authority was being "smart with our money." Monzon said it was not required and not necessary.

"Because no effort was made to see if there was a geologic hazard under the levee," Merritt said, "you really can't be certain that the design is going to meet any challenge that wasn't sought or found."

Authority members said their Technical, Operations and Maintenance Committee echoed Monzon's statements. They said the committee decided the design requirements were met.

The Authority opened bids for the first levee lift on July 27. Durr Heavy is also expected to install turf on the roughly five-acre work site once construction is done, according to authority records.

OPEC'S CUTTING PRODUCTION. WHAT DOES THAT MEAN FOR TEXAS OIL?

For the first time in nearly a decade, OPEC is scaling back to keep supply more in line with demand – a seemingly good thing for Texas industry.

By Alexandra Hart | September 29, 2016 11:18 am

Paul_Lowry/Flickr (CC BY 2.0)

A cutback in production from OPEC could help the U.S. oil market.

For the first time in nearly a decade, a cartel which brought the U.S. to its knees decades ago appears to have cried uncle. It's a struggle that in many ways has pit the Middle East against Texa – or, from another perspective, vice versa.

They'd hinted at it before, but for the first time in eight years, the oil cartel known as OPEC would cut production to get supply more in line with demand. Does this promise reprieve for drillers and service companies on the edge? For the texas economy, squeezed by a drop in energy revenue?

Michael Webber, one of the state's best known experts on energy and deputy director of the Energy Institute at the University of Texas at Austin, says this announcement does mean hope on the horizon.

"Anything that will drive prices higher will make them happier," he says, "because it means they will control more, produce more and maybe make a higher profit. So that means jobs and revenues for a lot of people."

What you'll hear in this segment:

– What the Saudi strategy means related to markets in Texas, Venezuela, Russia and Iran

– How shale surprised people and how their resilience affected the industry

– The effects of the oil glut, from Texas oilfields to the government of Saudi Arabia

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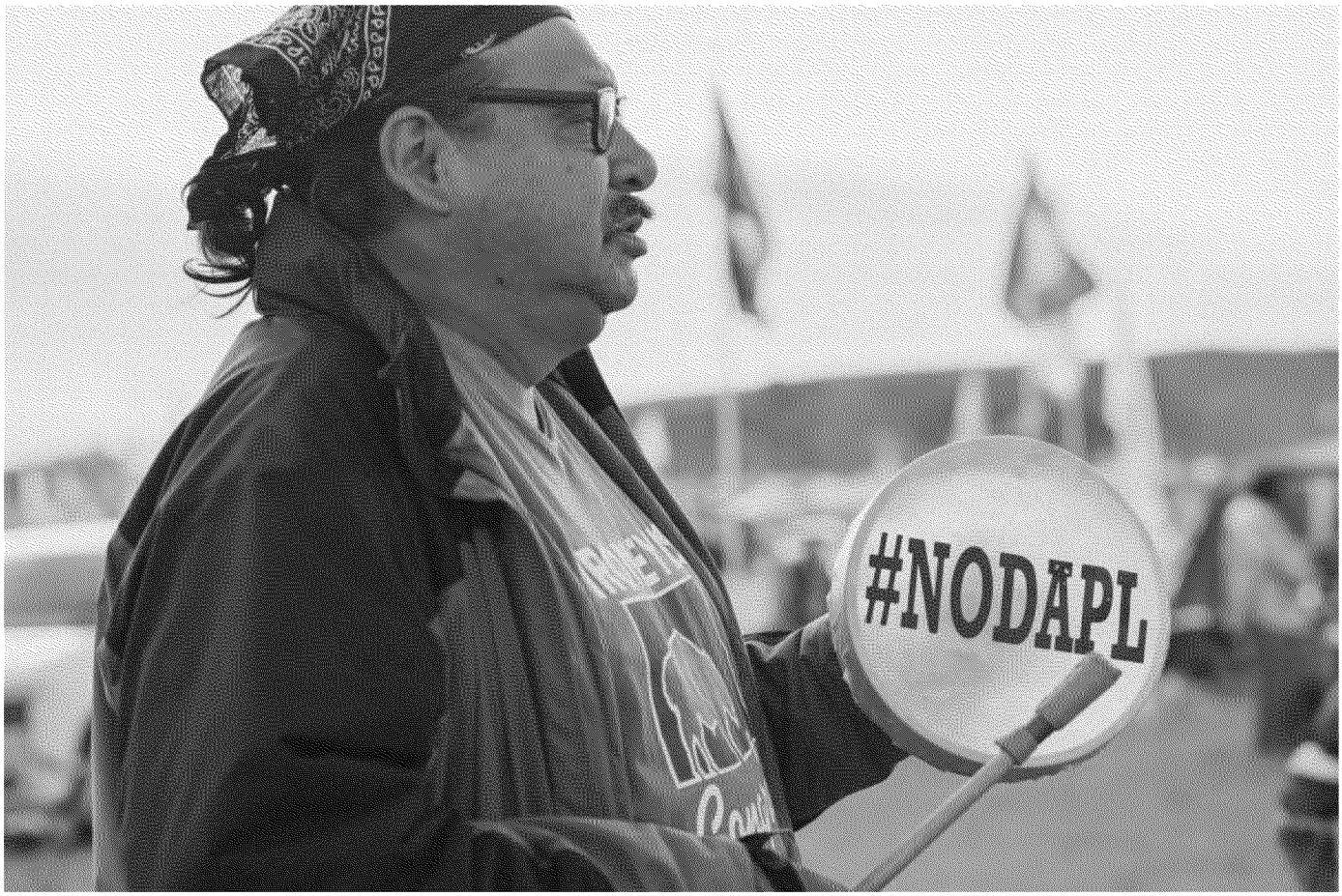
NO MATTER WHERE YOU ARE, YOU'RE ON TEXAS STANDARD TIME

PBS NEWSHOUR

NATION

As pipeline projects grow, so do protests

BY JEN FIFIELD, STATELINE October 1, 2016 at 4:24 PM EDT



A protester demonstrates against the Energy Transfer Partners' Dakota Access oil pipeline near the Standing Rock Sioux reservation in Cannon Ball, North Dakota, on Sept. 9, 2016. Photo by Andrew Cullen/Reuters

Hundreds of miles from the North Dakota pipeline protests that garnered headlines earlier this month, a woman in Iowa stood in her soy bean field, trying to block industrial mowers about to cut down her crops.

In North Dakota, the Standing Rock Sioux have argued that a portion of the Dakota Access oil pipeline would threaten their drinking water and their sacred lands, and their protests prompted the federal government to halt construction on that segment earlier this month. In Iowa, Cyndy Coppola and other residents have sued their state government for allowing

Dakota Access to seize their farmland for the pipeline, which would cut through Iowa on its way from North Dakota to Illinois.

Pipelines are the safest and most efficient way to transport oil and gas, and it isn't possible to meet the nation's demand for fuel using rail or road alone. But as more oil and gas pipelines crisscross the country, environmental and energy lawyers say protests against them are becoming increasingly common.

"I just stood in front of them," said Coppola, 68. "I was so angry. I was like, 'Run over me, I don't care.' "

Landowners like Coppola are challenging pipeline companies' use of eminent domain to take their land. Environmental advocates worried about pipeline leaks have been putting more pressure on state officials to put restrictions on the projects, or block them entirely. And state lawmakers have gotten involved, with Republicans saying they want to protect personal property rights and Democrats saying they want to protect water sources and the environment.

Georgia and South Carolina passed laws this year that temporarily ban pipeline companies from using eminent domain. Residents there had concerns similar to those in Iowa regarding a proposed pipeline that would have carried petroleum from South Carolina to Florida.

New York in April withheld a required water quality certificate from a pipeline that would have pumped gas from Pennsylvania to New York. And cities and towns in New Jersey have passed laws and resolutions in an attempt to stop a company from building two parallel pipelines running there from New York.

The yearslong national debate over whether to approve the Keystone XL pipeline may have contributed to the general opposition to new pipelines, as people began to associate pipelines with climate change, said Bob Hogfoss, an attorney who represents pipeline companies.

Environmentalists said the proposed 1,200-mile Keystone XL pipeline would have dramatically increased carbon emissions and President Barack Obama eventually rejected it.

Pipeline leaks only add to concerns. This month, up to 336,000 gallons of refined gasoline spilled from a pipeline in Alabama, killing plants and wildlife and worrying locals that the gasoline would contaminate a nearby river. Environmentalists argue the sheer quantity of oil or gas being transported by pipelines and a lack of oversight have the potential to do more damage than trains or trucks.

"We now have these pipelines upstream from millions of people's drinking water," said Tonya Bonitatibus, an advocate for Savannah Riverkeeper, an environmental nonprofit in Georgia. "And in the long run it's not if it's going to leak. It's when it's going to leak."

Taking Land

The approval process for pipelines varies, depending on what they will transport and whether a pipeline system crosses state lines. Pipelines that transport oil, as well as pipelines that transport oil or natural gas within a single state, are approved by that state. Pipelines transporting natural gas across state lines must be approved by the Federal Energy Regulatory Commission.

The commission approved 35 major natural gas pipelines last year, tied with 2007 for the most of any year for which data is available.

States rarely block proposals for new oil pipelines, although in recent years some have beefed up safety rules.

Yet questions are arising in multiple states over whether private companies have the right to use eminent domain, the power to take land for a public purpose with just compensation, for

projects that are sometimes unregulated by the state. Eminent domain laws for pipelines vary by state. In many states, pipeline companies must get approval from the state before using eminent domain.

In Kentucky last year, the Court of Appeals ruled that eminent domain can only be used by pipeline companies if the pipelines are regulated by the state's Public Service Commission.

Farmers in Iowa argue that the Dakota Access pipeline doesn't meet any public need, because it carries oil across the state without supplying oil to it, and thus the state shouldn't have granted the pipeline company eminent domain powers.

The Iowa Public Utilities Board in March voted to approve the use of eminent domain, writing that the pipeline would carry crude oil more safely than the alternatives, and that the construction and operation of the pipeline would bring jobs and other economic benefits.

So far, Coppola said her family has spent at least $25,000 trying to fight the board's decision. Meanwhile, the company building the pipeline agreed to pay the family $8,500 for four of its 80 acres, and moved forward with the project, building and burying the pipeline across part of the farm.

Protecting Land and Water

The resistance in Iowa, Georgia and South Carolina centered on eminent domain, but the fights started in part because landowners were worried about what the pipelines would do to their property and the environment. The nutrient-rich soil in Iowa is a rare commodity, Coppola said.

"Once the land is disrupted, even if they put it back it won't be the same for a hundred years where they dug under it," Coppola said. "And if there is a leak it will be thousands of years before the land is as productive as it is now."

The pipeline that faced resistance in Georgia and South Carolina would have run through conservation land and crossed five major rivers and numerous tributaries and creeks in Georgia, potentially harming habitats and the ecosystem, according to the Georgia Conservancy, a local nonprofit. The group also argued that there was no need for additional fuel in coastal Georgia, where the pipeline was to be built.

When Kinder Morgan, the company building the pipeline, first started approaching property owners, it "started a real ruckus," said Georgia state Rep. Bill Hitchens, a Republican.

Hearing the concerns, the state denied Kinder Morgan the right to use eminent domain. "There was no real benefit to Georgia," Hitchens said.

Hitchens supported the new Georgia law that put the use of eminent domain for pipelines on hold for a year. A similar law in South Carolina did the same thing, for three years. Legislative commissions in both states are using the time to consider if and how to change the law permanently.

Meanwhile, landowners in the states now recognize that they have the power to speak up against eminent domain for this use, said Bonitatibus of Savannah Riverkeeper.

Federal 'Rubber Stamp'

When it comes to natural gas projects crossing state lines, states have long relied on the Federal Energy Regulatory Commission to ensure the safety of proposed projects.

But environmental attorneys, such as Alex Bomstein, of the Clean Air Council, say the commission has become a rubber stamp for pipeline projects.

Earlier this month, in a letter to the U.S. Congress, 180 environmental, energy and community planning organizations from 35 states called for a change to the Natural Gas Act, which gives the commission the authority to approve pipeline requests.

The coalition argues that the federal agency is abusing its approval power, "resulting in uncontrolled and irresponsible proliferation of unneeded natural gas pipelines." State and local governments should be given more power to address eminent domain and environmental concerns related to the projects, the coalition says.

Pipeline projects should be subject to all environmental and community protection laws, just as all other industries are, said Maya van Rossum, leader of the Delaware Riverkeeper Network and a co-signer of the letter to Congress.

As part of the commission's approval process, states may have one tool to block projects: withholding a certificate stating that the project meets water quality standards. But lawyers representing energy companies and environmental groups disagree on whether states can do

this, given the current law that gives the federal government the final say on natural gas pipeline approvals.

In a rare move, a New York state agency in April denied a water quality certificate for a 124-mile project that would have run through the state from northeastern Pennsylvania, saying the pipeline company failed to prove that the project would not harm the 250 streams it crosses in the state.

The decision is "important and powerful and it is demonstrating to states across the nation that they do have the capacity to say no, and they should embrace that authority," van Rossum said.

Meeting Demand

Energy companies say the new pipelines are needed to transport oil and gas from new places. The use of hydraulic fracturing, which has given companies access to oil and gas deposits that used to be out of reach, has increased production across the country, from California to Pennsylvania. Trains and trucks are o쓈 □en used to get the oil from these new sources to refineries where the oil is processed, and transporting it by pipeline would be much more e뚗 롁icient.

Since the Keystone XL debate, every pipeline project seems to be meeting the same resistance that project did, and the opposition threatens the economy, said Martin Durbin, executive director for market development of the American Petroleum Institute, at an event for the energy industry in April.

"We have to have this infrastructure in order to achieve and realize all of the benefits from an economic growth standpoint, from an emissions reduction standpoint, and to continue to grow on the U.S. role as a global energy leader," he said.

Both Durbin and Melissa Ruiz, spokeswoman for Kinder Morgan, the largest oil and gas pipeline company in the U.S., said the energy industry and the government need to do a better job of educating the public about how safe and important the pipelines are.

"There are always going to be people who say not in my backyard," Ruiz said, "but I think that's the reality that holds true on everything."

This story first appeared on Stateline, an initiative of The Pew Charitable Trusts.

ENVIRONMENT | Fri Sep 30, 2016 | 8:51pm EDT

Matthew strengthens into Category 2 hurricane: NHC

Hurricane Matthew has strengthened into a Category 2 hurricane on the Saffir-Simpson Wind Scale, the U.S. National Hurricane Center (NHC) said on Friday.

Hurricane Matthew was about 565 miles (910 km) east-southeast of Kingston Jamaica with maximum sustained winds of 100 miles per hour (155 km/h), the NHC said.

Additional strengthening is forecast during the next 48 hours, and Matthew could become a major hurricane later today or tonight, the Miami-based weather forecaster said.

(Reporting by Karen Rodrigues in Bengaluru; Editing by Louise Ireland)

NEXT IN ENVIRONMENT

Floods affect 600,000 in North Korea: Red Cross

SEOUL At least 600,000 people in North Korea have been affected by heavy flooding that damaged or destroyed 30,000 homes, the Red Cross said, calling for urgent humanitarian aid ahead of the winter.

South African summer to be hotter than normal amid drought

JOHANNESBURG Severe drought conditions are still afflicting most of South Africa and temperatures are expected to remain above normal until mid-summer, which would be around December, the national weather service said on Monday.

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Pictures of the month: September

MORNING BRIEFING: Explaining Trump's tax-dodging, Colombia says 'no' to peace, A Kardashian robbed/VIEW MORE

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All quotes delayed a minimum of 15 minutes. See here for a complete list of exchanges and delays.

http://www.theadvocate.com/baton_rouge/news/article_0fc1376a-8642-11e6-a733-6bf18ab392a6.html

Video: Dashcam footage shows Camp Minden blast that lit up sky Thursday morning

By BILL FULLER, Associated Press UPDATED SEP 29, 2016 AT 5:01 PM

This photo, shared by the Louisiana State Police, shows the aftermath of the Thursday morning explosion at Camp Minden.

Louisiana State Police released dash cam footage of the explosion at Camp Minden Thursday morning.

In the video, a large flash can be seen appearing in the distance as the bunker where M-B propellant exploded.

Posted by Louisiana State Police
17,303 Views

Trouble seeing the video? Click here.

The blast looks large in the video, LSP reported, but it was smaller than a similar blast in 2012, and was mitigated by the earth covering over the bunker.

Update, 10:30 a.m. Thursday

Louisiana State Police say the explosion at Camp Minden happened in one of many bunkers where 7,800 tons of explosive M-6 propellant is stored.

Trooper Matt Harris says the hazardous materials unit is surveying the area by air to see the extent of damage.

Harris says once the area is deemed safe, investigators will start looking for a cause of Thursday morning's explosion. He says no one was injured in the blast.

Explosive Services International is in the process of destroying propellant that was left behind when the company went bankrupt in 2013.

Webster Parish official Jenny Reynolds says she was standing on her front porch drinking coffee when she saw a flash and then heard an explosion coming from the direction of Camp Minden.

Original story

MINDEN (AP) -- Louisiana State Police say a hazardous materials unit was investigating an explosion Thursday in northwest Louisiana at the same site where a company was previously accused of abandoning 7,800 tons of potentially explosive artillery propellant.

Lt. Jeff White said the Troop G office in Bossier City started receiving calls around 5 a.m. Thursday.

The Webster Parish Police Jury posted on their Facebook page that an explosive incident occurred at Camp Minden. There were no immediate reports of injuries and the area has been secured.

Explosive Services International of Baton Rouge is working at Camp Minden on the burn operation to destroy millions of pounds of improperly stored M-6 propellant. Company President Billy Poe told The Associated Press his men at the site did not hear an explosion.

"My personnel are accounted for and no one is hurt," Poe said.

Poe said he was on his way to the scene and planned to get a helicopter in the air to check out the area where the propellant is being stored.

Truck driver DaWayne Munk told Shreveport station KSLA-TV he was driving on Interstate 20 and "I saw a fireball over the tree line. The whole sky lit up."

The National Weather Service says its radar picked up a column of smoke over the Camp Minden area.

Forecaster Mike Berry told The Associated Press the smoke appeared at 5:08 a.m. and disappeared from the radar 10 minutes later.

"The smoke was first noticed at 1,600 feet and rose to 4,900 feet," Berry said.

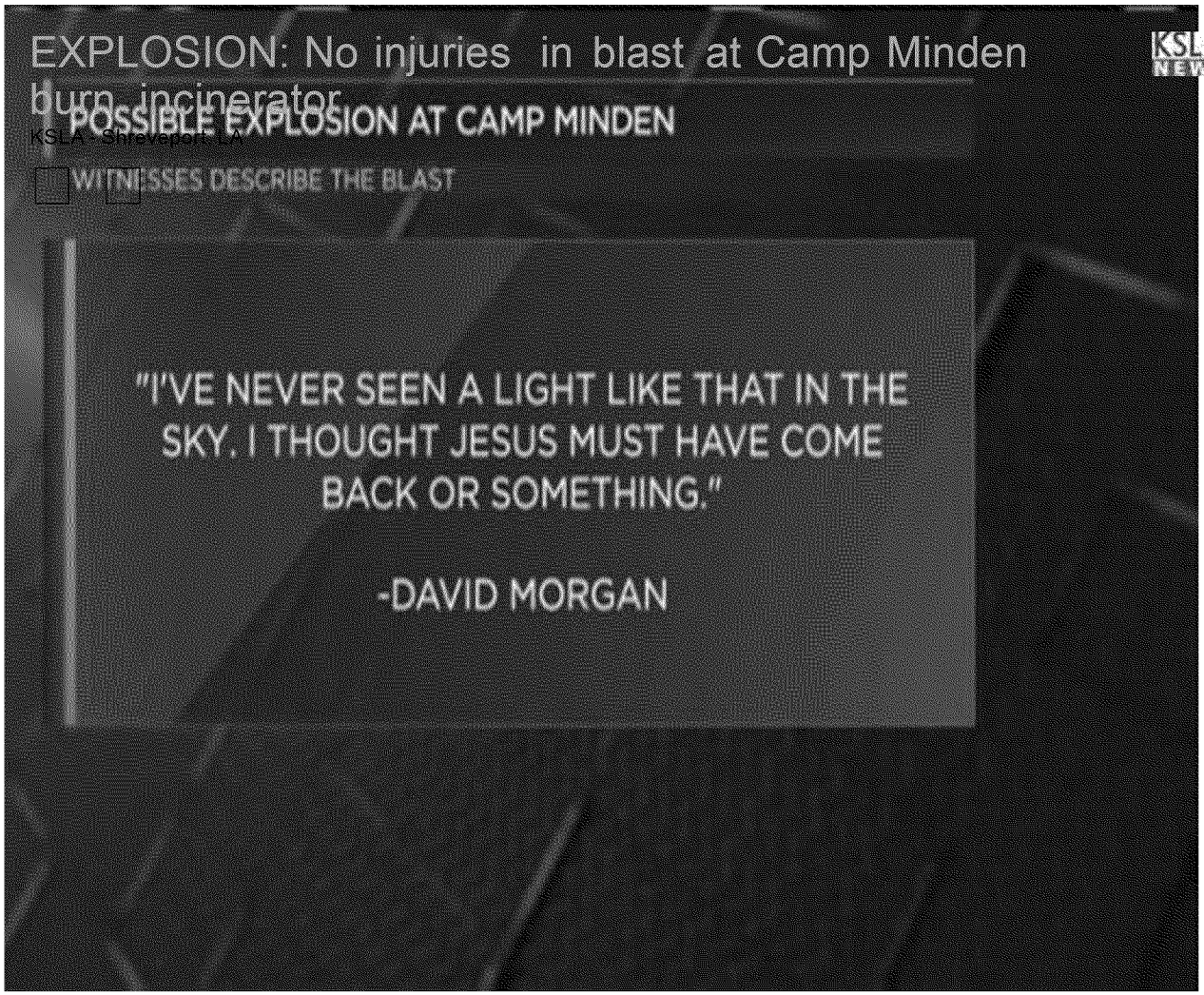
The owners and four officials of Explo Systems Inc., the company accused of abandoning potentially explosive material at the site, have pleaded not guilty to federal charges. They are accused of lying to ge contracts to "demilitarize" the M6 artillery propellant, storing it unsafely and obstructing inspections.

State Police had begun investigating the company in 2012 after an explosion in one of Explo's leased bunkers shattered windows 4 miles away in Minden and created a 7,000-foot mushroom cloud. They found the M6 and 160 tons of clean-burning igniter, much of it in bags in the open.

Explo Systems, which leased space from the National Guard's industrial site at Camp Minden, went bankrupt in August 2013 and abandoned the site.

Camp Minden is 22 miles east of Shreveport.

Can't see the video? Click here.

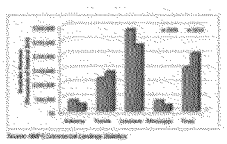


Notices for last $520M in BP spill seafood claims out next week

By Mark Schleifstein, NOLA.com | The Times-Picayune
Email the author | Follow on Twitter
on September 29, 2016 at 6:24 PM

Claimants in line to collect the last $520 million of $2.3 billion in seafood claims money stemming from the BP oil spill will receive notices that their payments are ready next week, court-appointed private claims administrator Patrick Juneau announced Thursday (Sept. 29). Another five categories of private claims, totaling $454 million, are also near completion, Juneau said.

As of this week, Juneau's Court-Supervised Settlement Program office has paid out $8.64 billion, including about $6.5 billion in the still uncompleted "business economic loss" category. The office began accepting claims in June 2012, following the approval of the settlement between BP and private claimants, which included seafood claimants, businesses and individuals who filed for compensation for medical problems caused by the April 2010 Deepwater Horizon oil spill and the 87-day oil spill that followed.



BP spill's '10 toll on f ishing: At least $94.7 million

BP oil sped erosion in worst-coated wetlands, study says

"My goal is to finish this entire process within one year of this date and go home," said Juneau, who is 78. "Of course if there's some new legal thing that happens out there, new challenges filed, I don't control that."

Juneau also noted the irony that his announcement came a day before the official release of the "Deepwater Horizon" movie, which documents the blowout of the oil rig 41 miles off Louisiana's coast that was drilling the BP Macondo well and resulted in the spill, triggering the settlement agreement. He insisted the timing was coincidental.

The seafood claims portion of the private settlement was capped at $2.3 billion as part of the agreement between BP and attorneys representing the claimants, including fishing industry businesses and employees. Louisiana fishers received 56 percent of the seafood claims, compared to 19 percent for Florida, 11 percent for Texas, 7 percent for Mississippi, and 6 percent for Alabama.

Juneau praised U.S. District Judge Carl Barbier, who oversaw the private claims settlement while also overseeing a half-million individual lawsuits against BP, including those filed by federal, state and local governments that resulted in a separate $20.8 billion settlement with the company.

He also praised retired U.S. Magistrate Sally Shushan, who assisted Barbier in overseeing the claims process, as well as BP and the Plaintiffs Steering Committee, the team of lawyers representing the private claimants.

"We are pleased the (Court-Supervised Settlement Program) has reached this milestone and look forward to working collaboratively with the claims facility as they process the remaining claims," said a statement issued Thursday by Brett Clanton, a spokesman for BP.

"On behalf of the businesses and families of the Gulf, we are grateful to Judge Barbier, Pat Juneau, former Magistrate Judge Shushan, and the entire Settlement Program, for their tireless hard work and unwavering dedication," said a statement issued by Steve Herman and Jim Roy, co-lead counsel for the plaintiffs steering committee.

Juneau said he originally hoped the private settlement claims process – the largest ever overseen by a United States federal court – could have been completed in two years. But appeals filed by BP over the rules approved by Barbier hat governed how the business claims were issued resulted in an 11-month suspension of the business economic loss process.

And it's in that category where 30 percent of the claims must still be processed. Juneau said he's unable to estimate how much more money those claims represent. But if the incomplete claims are paid similar amounts as those already paid, it could represent another $1.9 billion paid by BP.

In the medical claims program, part of the private claims settlement, but overseen by a different court-appointed supervisor, claims totaling $40.2 million have been approved for 12,881 claimants. However, the medical program also 26,641 individuals who are participating in a long-term medical consultation program paid for by BP. BP also has paid out $104.7 million for eight community-based health care programs across the Gulf Coast.

The settlement's private claims program followed an earlier claims program that BP set up unilaterally in 2010, overseen by attorney Kenneth Feinberg. That program, known as the Gulf Coast Claims Facility, paid $6.2 billion to more than 220,000 individual and business claimants. Most of those claimants were then excluded from the private claims settlement program.

In a July quarterly financial statement, BP announced that it had come up with a final estimate of its cost for the oil spill: $61.6 billion, which included its own estimate of both the remaining business economic loss claims and the claims of businesses that opted out of the private settlement agreement.

That number also includes the company's $20.8 billion in payments to federal, state and local officials to settle Clean Water Act and economic claims, such as state and local tax losses.

It also includes the company's $4.5 billion settlement of criminal charges stemming from the company's actions before and during the Deepwater Horizon explosion, which killed 11 workers, and in its aftermath, including charges that employees lied to Congress about the immensity of the oil release.

The seafood compensation program consisted of three distributions, with the first resulting in $1.2 billion in claims paid. A second phase distributed $521 million between December 2014 and April 2016. The final distribution is about $520 million. In all, there will be 24,956 claims paid, which represents about 6.5 percent of the total number of claims filed in the program.

The other categories that are closed or near closure include:

- Real property sales, 100 percent complete, with more than $40 million in claims going to 3,069 claimants.
- Vessels of opportunity, the boats used to help BP contractors remove oil from the Gulf during the spill, also is complete, though two cases are in the midst of appeals. There were 8,959 claims, totaling more than $283 million.
- Vessel physical damages is 99 percent complete, with four on appeal and 11 pending finalization or awaiting a response to a notice of approval or denial. There were 1,564 claims, representing more than $12 million.
- Individual periodic vendor or festival vendors is 99 percent complete, with three claims on appeal, and two pending finalization or awaiting a response. There were 389 claims for more than $77,700.
- Coastal real property is 99.9 percent complete, with five claims on appeal and less than 27 pending finalization or awaiting a response. The 42,223 claims in this category represent more than $164 million.

The five remaining categories range from 67 percent to 87 percent complete. Three of the categories are part of the overall business loss program:

- Business economic loss, 70 percent complete, with 94,301 of 134,527 claims resolved, representing $6.2 billion in payments or eligibility notices having been sent out.
- Start□up business economic loss, a separate category, is 70 percent complete, with 5,458 of 7,842 claims resolved, representing $164.8 million.
- Failed business economic loss is 77 percent complete, with 4,425 of 5,770 claims resolved, representing $9 million.
- Individual economic loss is 87 percent complete, with 52,983 of 60,803 claims resolved, representing $90.1 million.
- Wetlands real property is 72 percent complete, with 20,291 of 28,195 claims resolved, representing $204.5 million.
- Subsistence, defined in the settlement as defined in the settlement agreement as "the catching of fish or wildlife for personal or family dietary, economic, security, shelter, tool or clothing needs," is 67 percent complete, with 45,134 of 67,810 claims resolved, representing $298.3 million. The subsistence claims are not part of the capped seafood claims program.

Climate (/climate-change) Sep. 30, 2016 09:33AM EST

22 of America's Biggest Air Polluters

The Center for Public Integrity (/community/Center_for_Public_Integrity)

By Jamie Smith Hopkins

To see one of the country's largest coal-fired power plants (http://www.ecowatch.com/boom-bust-the-future-of-coal-fired-power-plants-1882200120.html), head northwest from this Ohio River city. Or east, because there's another in the region. In fact, nearly every direction you go will take you to a coal plant—seven within 30 miles.

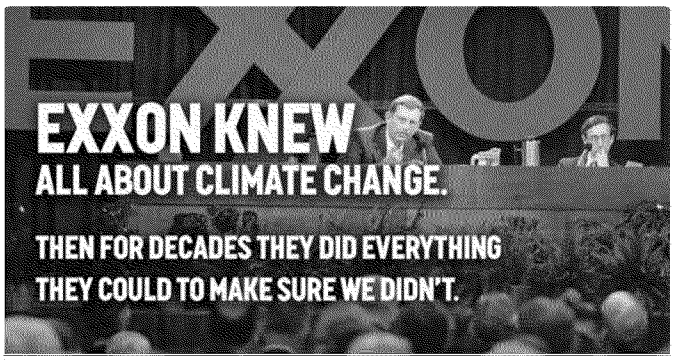
Collectively, they spew millions of pounds of toxic air pollution (http://www.ecowatch.com/ohio-air-pollution-2020969888.html). They throw off greenhouse gases on par with Hong Kong or Sweden.

Industrial air pollution—bad for people's health, bad for the planet—is strikingly concentrated in America among a small number of facilities like those in southwest Indiana, according to a 9-month Center for Public Integrity investigation.

Super Polluters: A Documentary from The Weather Channel

The Center for Public Integrity, which merged two federal datasets to create an unprecedented picture of air emissions, found that a third of the toxic air releases in 2014 from power plants, factories and other facilities came from just 100 complexes out of more than 20,000 reporting to the U.S. Environmental Protection Agency (EPA). A third of the greenhouse-gas emissions reported by industrial sites came from just 100, too. Some academics have a name for them: super polluters.

Twenty-two sites appeared on both lists. They include ExxonMobil (http://www.ecowatch.com/sec-exxon-climate-change-2011247494.html)'s massive refinery and petrochemical complex in Baytown, Texas, and a slew of coal-fired power plants, from FirstEnergy (http://www.ecowatch.com/ohios-energy-future-is-bright-unless-firstenergy-gets-its-way-1882105692.html)'s Harrison in West Virginia to Conemaugh in Pennsylvania, owned by companies including NRG Energy and PSEG. Four are in a single region—southwest Indiana. Together, owners of these 22 sites reported profits in excess of $58 billion in 2014.



Thomas O. McGarity, a law professor and regulatory scholar at the University of Texas at Austin, said the Center for Public Integrity's findings show that "a lot of the problem is isolated, and what we need to do is focus in on these plants."

The EPA says it's doing that. In a written statement, the agency said its sustained emphasis on the electric power sector has led to "dramatically" lower emissions from power plants since 1990—"while the U.S. economy has continued to grow"—and it is working to get further improvements.

But not all the states are on board. Indiana is one of 27 suing the EPA over its Clean Power Plan (http://www.ecowatch.com/apple-google-amazon-and-microsoft-file-amicus-brief-in-support-of-the--1882200369.html), which would require reductions in climate-altering greenhouse-gas pollution from electric utilities. Indiana is also among the states that tried to block a federal rule (https://www.epa.gov/mats) to reduce emissions of dangerous metals and acid gases from coal- and oil-fired power plants (http://www.ecowatch.com/methane-emissions-from-onshore-oil-and-gas-equivalent-to-14-coal-plant-1891179510.html). Its governor, Mike Pence—Donald Trump (http://www.ecowatch.com/5-things-you-need-to-know-about-donald-trumps-pitiful-plan-for-the-pla-1891144942.html)'s running mate—is a pro-coal, climate change (http://www.ecowatch.com/climate-change/) skeptic who says the costs of shifting to cleaner energy sources are too high (http://www.in.gov/activecalendar/EventList.aspx?fromdate=10/1/2015&todate=10/30/2015&display=Month&type=public&eventidn=238313&view=EventDetails&information_id=233054).

Maintaining the status quo has costs as well: bad air that threatens health and fuels global warming (http://www.ecowatch.com/it-wasnt-only-exxon-that-knew-about-global-warming-since-the-1970s-1882135574.html). More toxic pollution from utility coal plants was sent into the air within 30 miles of Evansville than around any other mid-sized or large American city in 2014, a Center for Public Integrity analysis shows. That same 30-mile radius accounted for the most greenhouse gases released by U.S. coal plants that year around any city.

Across the country, the top 100 facilities releasing greenhouse gases—almost all of them coal plants—collectively added more than a billion metric tons to the atmosphere in 2014. That's the equivalent of a year's worth of such emissions from 219 million passenger vehicles—nearly twice as many as the total number registered nationwide.

The top 100 for toxic air emissions vented more than 270 million pounds of chemicals in 2014. The vast majority of these chemicals have known health risks, according to the EPA; they can target the lungs, the brain or other organs, and some can affect the development of children born and unborn.

Eight of the super polluters have closed. The rest, including all four in Indiana, still operate.

Tina Dearing, 48, from Huntingburg, Indiana, was unexpectedly widowed in March when her 57-year-old husband died of a heart attack. Coronary artery disease, the death certificate says. Two months later, researchers published the results of a 10-year study (http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(16)00378-0/abstract) that showed why previous investigations kept finding shorter lifespans in areas with poorer air quality: pollution appears to accelerate harmful deposits in the arteries that cause nearly all heart attacks and most strokes.

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Dearing's family lives northeast of Evansville in a community within 30 miles of two of Indiana's largest coal plants. She knows a variety of factors can play a role in an early death, but believes dirty air contributed in her husband's case.

"The air quality stinks," she said.

The Center for Public Integrity, which relied on the EPA's most recent final Toxics Release Inventory data to track total chemical releases, found that the people who live within three miles of the top 100 polluters are in some ways a cross-section of America: spread across half the states, all races, young and old, in a wide range of income brackets.

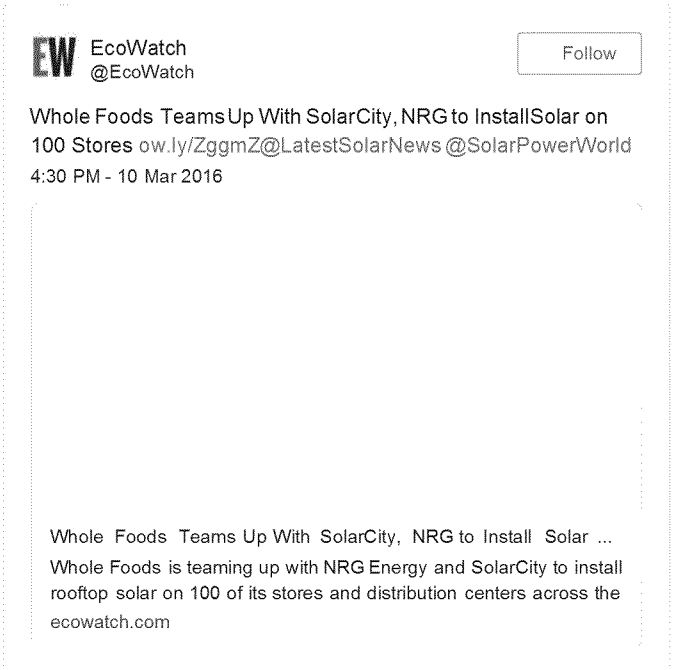
But more of them are poor or African-American than the country as a whole, data from the U.S. Census Bureau shows. For instance, nearly 90 percent of the thousands living within three miles of ExxonMobil's refinery and chemical plant in Baton Rouge, Louisiana, are black and about a third are below the poverty line. The complex, which ExxonMobil said has reduced total emissions over 40 percent since 1990, released more than 2.6 million pounds of chemicals to the air in 2014, including hydrogen cyanide (https://www.atsdr.cdc.gov/MMG/MMG.asp?id=1141&tid=249)—which can cause headaches, confusion and nausea—and known carcinogens such as benzene.

Mary B. Collins with the State University of New York College of Environmental Science and Forestry and two other researchers found similar disparities in a sophisticated analysis (http://iopscience.iop.org/article/10.1088/1748-9326/11/1/015004) this year, writing that "there exists a class of hyper-polluters—the worst-of-the-worst—that disproportionately expose communities of color and low income populations to chemical releases."

While people nearby are the most affected, these facilities can degrade air far afield. Almost all the states with top toxic-air emitters send a significant amount of pollution to downwind states, according to EPA analyses—in some cases reaching people hundreds of miles away.

Some of the companies that own the nation's biggest polluters say their emissions break no rules and are simply a reflection of a facility's size. Others point out that they've ratcheted down releases in recent years, including after 2014. FirstEnergy said it has shuttered coal plants (http://www.ecowatch.com/six-coal-fired-power-plants-to-permanently-close-by-september-1881578067.html) accounting for more than 5,000 megawatts of power generation since 2012.

NRG, which owns or co-owns several coal plants on the top-100 lists, said its toxic air emissions are falling, including a sharp drop in mercury in 2015 to comply with new federal regulations, and it has set aggressive climate goals—a 50-percent cut in greenhouse gases by 2030, 90 percent by 2050—that would mean a major overhaul in the way it makes power.



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"More and more of our new revenue is coming from much lower-carbon sources."

But coal is far from dead in America. And the tug-of-war over the future of electric power generation will affect everyone, some more than others. The influential utility industry. Blue-collar energy workers, from coal miners to solar panel (http://www.ecowatch.com/elon-musks-solarcity-to-begin-mass-producing-worlds-most-efficient-sol-1882106461.html) installers. Neighbors of coal plants. Electricity customers. People suffering from the lengthening pollen season (http://www.scientificamerican.com/article/climate-change-extends-allergy-season/), dangerous heat waves (http://www.climatecentral.org/news/sizzling-summers-20515), devastating floods (http://www.nytimes.com/2016/08/17/us/climate-change-louisiana.html?_r=0) and other effects (http://www.ibtimes.com/global-warming-2016-how-rising-sea-levels-displaced-native-american-tribe-louisiana-2339091) of global warming.

To watch this unfold, come to one of the biggest coal-burning states, a place with no renewable energy (http://www.ecowatch.com/renewable-energy/) requirements. No mandatory energy efficiency targets to cut back on unnecessary, money-wasting (http://energy.gov/eere/why-energy-efficiency-upgrades) usage. No contingency plan for climate change repercussions, which so worried local university researchers that a group of them sent a letter to the governor (http://www.urbanhealth.iupui.edu/assets/documents/Letter%20from%20Indiana%20Climate%20Scientists.pdf) last fall pleading with him to call on their expertise—a letter that went unanswered.

Come to Indiana.

Living and Dying in Evansville

Kavon Cooper's asthma, his mother says, "was a constant battle." If he spent too much time outside in Evansville, he needed medicine to breathe. If he went to a friend's house, he never knew if he'd have to go home in a hurry. Sometimes his asthma attacks were so bad that he ended up in the hospital. So he stayed inside as much as possible with the windows closed, playing video games, dreaming of testing them for a living someday.

For all that, the 12-year-old seemed to be getting better. It was a shock when he collapsed and died at home last year, lying in the hallway by the bathroom as his nebulizer ran in his bedroom. The coroner ruled that he'd suffered an acute asthma attack.

His mother, Kris Dasch, 47, couldn't understand what had happened. The only explanation she got was that pollen had spiked.

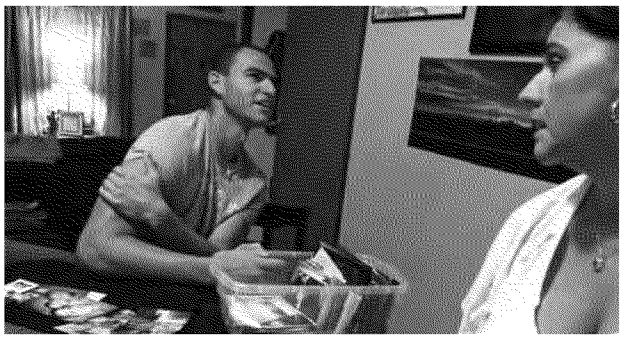
So had air pollution. But no one had told her that.

Levels of toxic specks called fine particles (https://www.epa.gov/pm-pollution/particulate-matter-pm-basics)—typically formed by emissions from power plants, vehicles and factories—leapt up 20 micrograms per cubic meter the previous day, according to the air monitor less than a half-mile from the family's home. They began to ease overnight, then jumped another 9 micrograms shortly before his death. Levels of sulfur dioxide (https://www.epa.gov/so2-pollution/sulfur-dioxide-basics#effects), another common power plant pollutant, also rapidly increased at the same time that morning.

These are conditions that research (http://www.ncbi.nlm.nih.gov/pubmed/14582813) suggests (http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4372644/pdf/nihms670501.pdf) can trigger a severe, even deadly, lung reaction. No one had told Dasch that, either. No doctor had ever discussed air quality with her, other than the effects of pollen.

Dr. Carrie A. Redlich, director of the Yale Occupational and Environmental Medicine Program, suspects that's almost always the case. Many physicians don't think about the connection between air pollution and health, Redlich said. They might not know, for example, that research (http://www.ncbi.nlm.nih.gov/pubmed/26073963) suggests tainted air and allergens such as pollen work like a one-two punch—together, the reaction is worse.

That both spiked in the lead-up to Kavon's death makes them sound to Redlich like contributing factors. "That is an important interaction," she said.



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Kris Dasch and son Kameron Edmonds, 19, look at photos of her younger son and his brother, Kavon Cooper.
Jamie Smith Hopkins / The Center for Public Integrity

Now that air quality is on her mind, Dasch makes connections that didn't stick out before. How well Kavon did on the rare occasions he took a trip outside the region. How a neighbor mentioned that her son's asthma didn't bother him as much when they lived in Arizona. How "there's a lot of illness, a lot of sickness in this area."

Vanderburgh County, which includes Evansville, has lower life expectancy compared with peer counties across the country and a higher rate of adults reporting fair-to-poor health, according to the Centers for Disease Control and Prevention's Community Health Status Indicators (http://wwwn.cdc.gov/CommunityHealth/profile/currentprofile/IN/Vanderburgh/). Some key influencers—poverty, unemployment and obesity—are actually better here than in most peer counties. What's counterbalancing it are higher rates of smoking and air pollution.

Researchers already knew that poor air quality impairs children's lung development (http://www.nejm.org/doi/full/10.1056/NEJMoa040610#t=article), but studies in the past few years have also suggested multiple in utero (http://www.jhsph.edu/news/news-releases/2016/study-even-a-little-air-pollution-may-have-long-term-health-effects-on-developing-fetus.html) complications such as autism spectrum disorder (http://ehp.niehs.nih.gov/1408133/), found a possible connection with childhood psychiatric conditions (http://bmjopen.bmj.com/content/6/6/e010004.full) and linked exposure to damage that can trigger neurological problems in old age (http://www.upi.com/Health_News/2015/04/25/Prolonged-exposure-to-air-pollution-linked-to-brain-damage-new-study-finds/1481429970069/). In 2013, the World Health Organization declared that air pollution causes cancer (https://www.iarc.fr/en/media-centre/iarcnews/pdf/pr221_E.pdf). Inflammation kicked off by the pollutants seems to be the common denominator.

"You add air pollution together with a lot of smokers, you are adding a lot of disease, premature death and costs that the state of Indiana incurs," said Dr. Stephen Jay, a pulmonologist and emeritus professor of public health at Indiana University-Purdue University Indianapolis who has pressed for a shift (http://www.commondreams.org/newswire/2015/06/30/indiana-doctors-public-health-experts-rally-epa-clean-power-plan) to clean energy.

Lori Salma, a preschool teacher from Evansville, says she is struck by the number of young children using lung medication. She and her 14-year-old son both have asthma, and there are days "when I feel winded after being outside for longer than 15 minutes."

She's frustrated that for all they've done in their house to try to reduce flare-ups—no carpets, no curtains, no pets and, of course, no smoking—"there's nothing we can do to control the air that we breathe."

Tina Dearing said her late husband, Vincent, would come home to Huntingburg from business trips and complain that inhaling the local air felt like someone standing on his chest. Her oldest daughter had trouble breathing as an infant. And she wonders whether the air contributed to her daughter's daughter, now 2, being born so small—not preterm, but just 5 1/2 pounds. (Research (http://aje.oxfordjournals.org/content/179/4/457) suggests (http://www.sciencedirect.com/science/article/pii/S0160412014002700) that air pollution can decrease birth weight.)

"That's why we limit our time outside," Dearing said.

Tina Dearing, 48, with 8-year-old daughter Maleah. Dearing believes air pollution contributed to her husband's fatal heart attack and has affected her family's health.
Jamie Smith Hopkins / The Center for Public Integrity

Rose Hoffman and her family lived in a community near Dearing's for years before moving in 2012 to Champaign, Illinois. Air quality was not the reason—in fact, when she occasionally heard bad news about it, "I didn't want to believe it because we enjoyed living there so very much." But what happened after they left, she said, "was stunning."

Her nighttime wheezing stopped. Her youngest daughter no longer coughs at bedtime. The awful migraines (http://jhealthscope.com/?page=article&article_id=35122) besetting two of her children went away almost entirely and hers eased. Her husband, a doctor, saw his asthma

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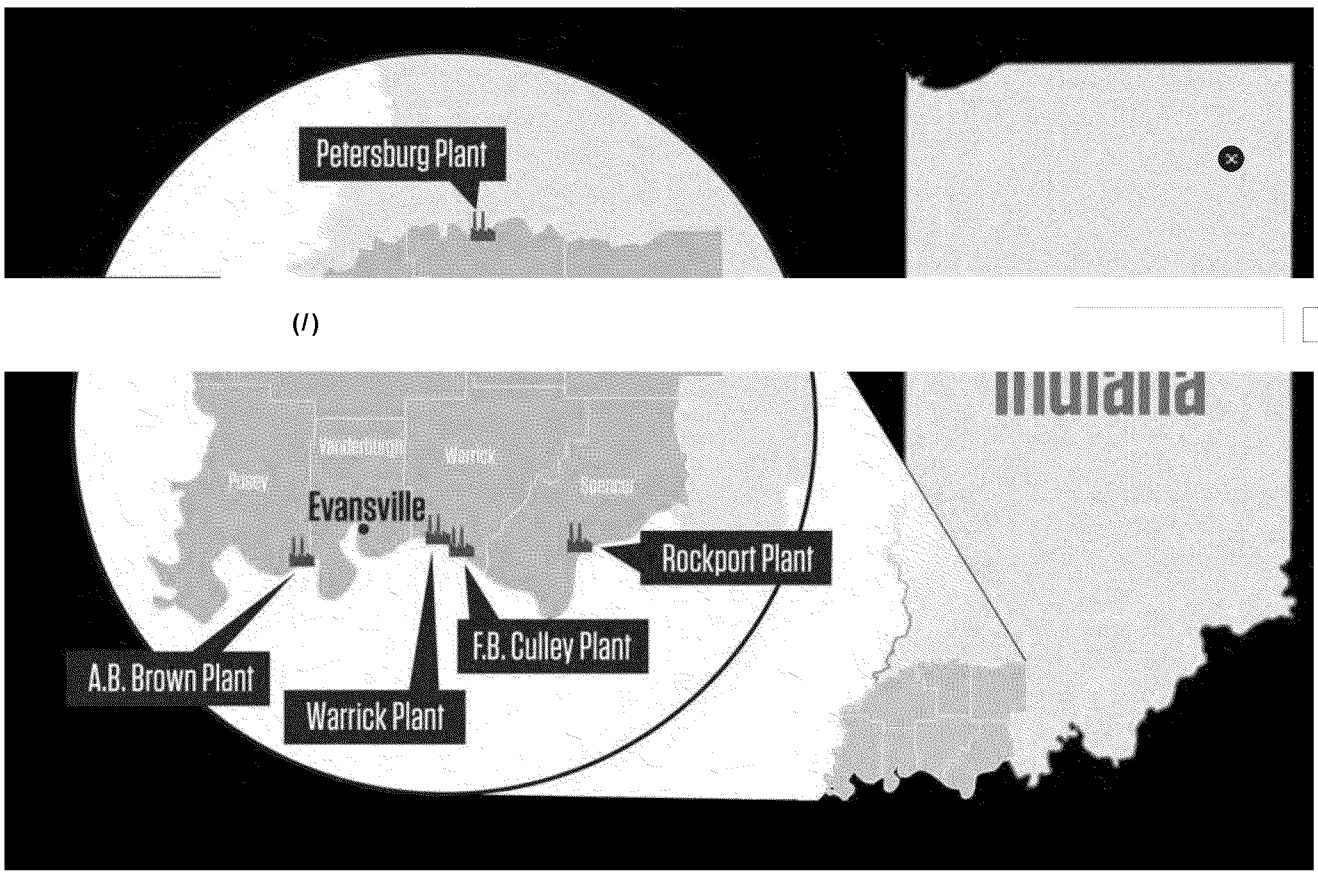
her doctors had no idea why it happened. Now, she can't help but think that air could have played a role (http://www.medpagetoday.com/pulmonology/pneumonia/17683) in that, too.

The State of the Air

Southwest Indiana doesn't look like an industry stronghold. Evansville, population 120,000, is the biggest city by far amid the rippling farmland. Rural Kentucky is just across the Ohio River, while the state capital of Indianapolis—and the massive steelmaking complexes in northern Indiana—are hours and a world away.

But this is coal country, where the state's 6,500 mining jobs are concentrated. Six coal plants operate here: Gibson, Rockport, Petersburg, Warrick, A.B. Brown and F.B. Culley, all but one within 30 miles of Evansville, which is also near two coal plants in Kentucky. A large piece of southwest Indiana power travels on transmission lines to be used elsewhere because the plants make more than 40 percent of the state's electricity in an area with just 6 percent of its people.



Eric Devlin / weather.com

They also make a disproportionate share of the pollution. The plants accounted for a quarter of Indiana air emissions reported to the EPA's toxics inventory in 2014, a remarkable concentration in the most manufacturing-intensive state (http://www.bls.gov/opub/ted/2014/ted_20140521.htm) in the nation. Within the seven most southwestern counties here, three-quarters of the air pollution recorded in the inventory came from the six coal plants. And that doesn't count the effects of the Kentucky plants.

Ask Mark Maassel about the air and he'll recount the billions of dollars in environmental controls his members have installed over the last decade, some required by federal rules, some by EPA enforcement actions. He's president of the Indiana Energy Association, a trade group for investor-owned utilities, and he sees "very significant changes and improvements in the environment of the state."

Power plants' sulfur dioxide emissions dropped 64 percent statewide between 2000 and 2014, he said. Nitrogen dioxide, which harms the lungs and contributes to ozone, often called smog, fell 69 percent, he said. As some coal plants shut down, carbon dioxide (https://www.epa.gov/ghgemissions/overview-greenhouse-gases)—which warms the atmosphere—also declined.

That's meant cleaner air. Evansville-area concentrations of fine particles dropped nearly 30 percent over the past decade, EPA monitoring figures show.

But the air here is still worse than in most of the country.

Vanderburgh County had higher levels of fine particles than nearly 90 percent of the U.S. counties with air monitors from 2013 to 2015, EPA records of average annual concentrations show. Vanderburgh was nearly on par with Manhattan, even though that New York City borough has nine times as many people and a lot more particle-spewing vehicles.

Despite that—and despite some power plants here running (http://indianapolis.crains.com/article/epa-alleges-clean-air-act-violations-ipls-petersburg-plant) afoul (http://archive.courierpress.com/news/local/epa-says-air-quality-around-vectren-plant-not-up-to-new-sulfur-dioxide-restrictions---2bf94540-2b6d--369177761.html) of EPA rules in recent years, including for sulfur dioxide—the region isn't violating federal air-quality standards for fine particles.

"The good news is, as of today, the entire monitoring network within the southwest Indiana area does demonstrate compliance," said Scott Deloney, air programs branch chief at the Indiana Department of Environmental Management.

The bad news: The standard for particles is based on total amount, but research is finding they aren't equally unhealthy. The most toxic ones, a 2015 study (http://ehp.niehs.nih.gov/wp-content/uploads/advpub/2015/12/ehp.1509777.acco.pdf) by 11 researchers in the U.S. and Canada suggested, come from burning coal.

What's more, researchers keep finding harm from fine particles at levels below the standard, which the EPA is reviewing to determine if it's still appropriate. A new study (http://www.ncbi.nlm.nih.gov/pubmed/27120296) led by a Johns Hopkins University researcher that focused on Boston—with markedly better particle levels than Evansville—found an association between that air pollutant and intrauterine inflammation, a key risk factor for premature birth.

In March, a New York University study (http://ehp.niehs.nih.gov/15-10810/) estimated the share of premature births that can be attributed to fine particles. Indiana was second-highest in the country.

Premature birth can have lifelong consequences for children and is the biggest cause (http://www.cdc.gov/reproductivehealth/maternalinfanthealth/pretermbirth.htm) of infant mortality—a challenge for Indiana, tied for ninth-worst

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Dr. Edward McCabe, chief medical officer at the infant-focused March of Dimes, says the evidence of pregnancy harms is now substantial enough that action—not simply further study—is required: "We need to do something about it."

But Indiana officials, focused on more widely understood risk factors such as smoking, which the state has high rates of, haven't delved into pollution as a possible contributor. A 2014 state report (http://www.in.gov/isdh/files/Addressing_Infant_Mortality_in_Indiana.pdf) aimed at improving infant survival rates didn't mention air quality at all.

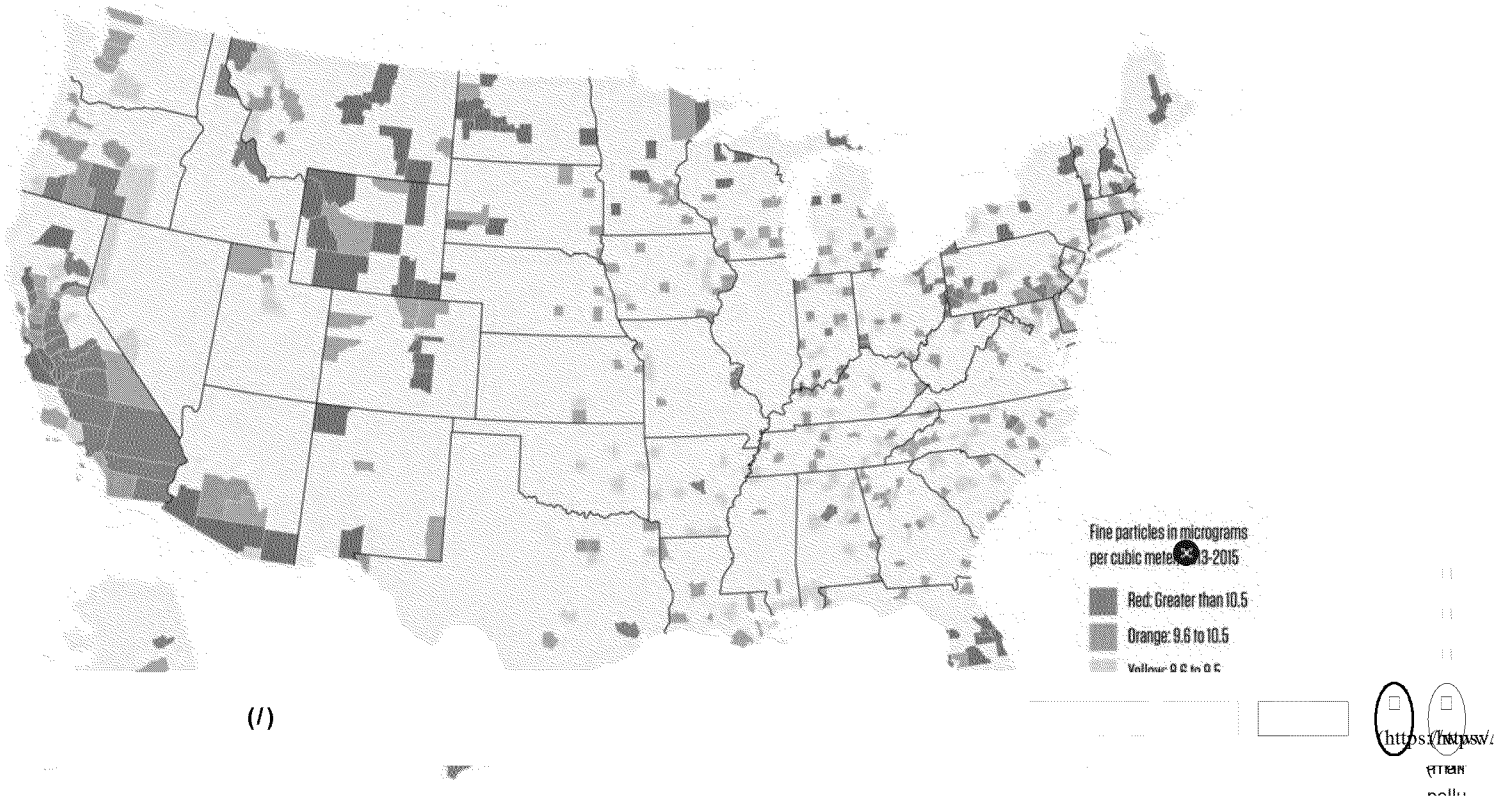
Asked about it, Indiana State Department of Health spokeswoman Jennifer O'Malley said by email that "outdoor air quality is beyond the scope of ISDH and was not a consideration" in its infant-mortality work. She referred questions to the Indiana Department of Environmental Management, which said it has no public-health specialists on staff.

Dr. Norma Kreilein, a pediatrician in southwest Indiana who has tried to draw attention to environmental-health problems she sees in the region, is fed up with the state.

"They've refused to connect pollution to public health," Kreilein said.

A spokeswoman for Pence did not answer questions about the matter or anything else for this story, except for one asking for his perspective on coal.

"This abundant Hoosier resource supports over 26,000 Hoosier jobs and has historically provided Indiana's economy with competitive electricity prices," the spokeswoman, Kara Brooks, said by email. "Unfortunately, President Obama's Clean Power Plan will drive up electricity prices, threaten electricity reliability, and put coal miners out of work. That is bad for Indiana and bad for America."



Fine particles—toxic specks that research has linked to a variety of ills, including shorter lifespans—aren't evenly concentrated across the country. Most of the country, colored in gray in the map above, does not have monitoring data for particles.
Eric Devlin / weather.com

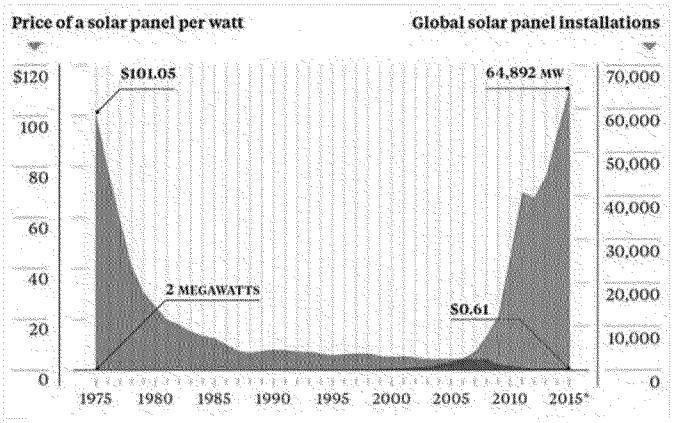
Pro-Coal State

As Pence himself put it last year, Indiana is a "proud pro-coal state (http://www.indystar.com/story/news/2015/07/09/pence-encourages-states-fight-greenhouse-gas-rules/29931537/)," and its energy use reflects that. It relies on coal for 75 percent of its electricity, at a time when the national average has fallen to 33 percent.

Pence gave up his shot at re-election this fall to run with Trump in the presidential election. The Democrat in the governor's race? A former coal lobbyist (http://www.thebraziltimes.com/story/2325051.html).

Pence's popular Republican predecessor also was pro-coal, and supported a coal-gasification power plant project that went way over budget (http://www.indystar.com/story/money/2015/02/03/edwardsports-climbing-price-tag-pay/22808045/). But former Gov. Mitch Daniels' administration also started a mandatory energy efficiency program to cut back on waste and crafted rules to allow more people to go solar.

The efficiency program is gone now, replaced with a law that sets no reduction targets for utilities and has saved less energy, according to the Midwest Energy Efficiency Alliance. State lawmakers tried last year (http://www.ecowatch.com/another-state-fights-war-on-solar-and-energy-efficiency-1882003067.html) to allow utilities to raise costs for customers with solar panels, stepping back only after they were flooded with complaints—solar advocates fear another attempt will come. And then there's Indiana's challenge with other states to the Clean Power Plan, now under a U.S. Supreme Court stay as a lower court considers the arguments.



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But if a complete energy transformation is inevitable, as some in Indiana assume, getting there quickly is not. There's so much farther to go here than in most places.

Just a handful of states get a larger share of their electricity from coal, according to U.S. Energy Information Administration figures, and none is as populous as Indiana. The only place that burns more tons of coal for power is Texas, which makes four times the electricity and gets a lot of it from natural gas.

Indiana made 16 percent of its electricity from natural gas last year. That fuel's unhealthy air emissions when burned are sharply lower than coal's. (Natural-gas power plants aren't tracked by the Toxics Release Inventory, which exempts certain operations from otherwise fairly broad coverage.) Gas plants also release 40 to 50 percent less greenhouse gases (https://www.eia.gov/tools/faqs/faq.cfm?id=73&t=11) than equally sized coal plants, though that doesn't include potent methane leaks (https://www.sciencedaily.com/releases/2016/03/160315104213.htm) before the fuel arrives on site.

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Then there's wind (http://www.ecowatch.com/cleveland-soon-to-be-home-to-the-nations-first-offshore-wind-farm-in-f-1891164783.html) and solar, which account for about 5 percent of Indiana's electricity. Because of its lopsided energy profile, Indiana gets bigger health and environmental benefits from new wind turbines than any other state, and among the biggest from new solar panels, according to a 2013 study

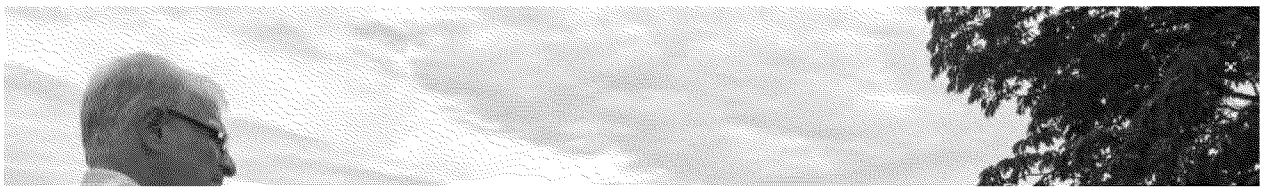
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3718187/pdf/pnas.201221978.pdf) by researchers at Carnegie Mellon University in Pittsburgh. A 2015 study (http://web.stanford.edu/group/efmh/jacobson/Articles/I/USStatesWWS.pdf) led by a Stanford University researcher suggested that Indiana would save money (http://thesolutionsproject.org/infographic/#in) by switching to renewables for all its energy needs.

But if Indiana's rate of change over the last 10 years continues, power plants here will burn coal for decades to come.

"It will be a gradual thing," predicted A. David Stippler, Indiana's utility consumer counselor. "Hopefully a prudent, well-thought-out transition."

The Pollution Field Trip

From the back seat of a car, John Blair offered up acerbic commentary on the biggest air polluters of southwest Indiana. To your left, Duke Energy (http://www.ecowatch.com/duke-energy-vs-solar-energy-battle-over-solar-heats-up-in-north-caroli-1882188911.html)'s Gibson power plant and its coal-ash ponds. To your right, the little neighborhood where Duke provided bottled water to residents—later connecting them to a town water system—after the coal ash contaminated their wells (http://indianapublicmedia.org/news/coal-ash-ponds-pose-contamination-risk-drinking-water-66894/).



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John Blair, head of Valley Watch in Evansville, gazes at the F.B. Culley power plant.
Jamie Smith Hopkins / The Center for Public Integrity

Blair is a 69-year-old photographer with a 1978 Pulitzer Prize (http://www.pulitzer.org/winners/john-h-blair), but what he's known for now is his work as volunteer head of a small environmental group in Evansville called Valley Watch (http://valleywatch.net/). In decades of agitating for cleaner air and water, he's often pressed the power plants—and their regulators—to do better.

The first stop on Blair's tour was Gibson, the fourth-largest coal plant in the country by capacity. Located 25 miles northwest of Evansville, it released 2.9 million pounds of air pollutants in 2014, according to the toxics inventory—much of that the lung irritant sulfuric acid, which the EPA says contributes to the formation of fine particles. Lead, arsenic and mercury, all neurotoxins, added up to a collective 1,000 pounds that year as well. And Gibson released more greenhouse gases than all but three other sites—not just power plants—nationwide.

"A godawful place," Blair said, "that should be shut down."

Duke Energy's Gibson power plant in southwest Indiana is the state's largest.
Jamie Smith Hopkins / The Center for Public Integrity

Duke spokeswoman Angeline Protogere said the company has "significantly reduced emissions" at Gibson, installing more than $1 billion in environmental controls there over the past 20 years. Some of that was negotiated in a 2014 settlement (https://www.documentcloud.org/documents/3111693-EPA-Consent-Order-Gibson.html) after the EPA said it found violations. Toxics Release Inventory air emissions at Gibson have shrunk by three-quarters since 2006, including a 19 percent drop between 2014 and 2015, Protogere said. Greenhouse gas emissions dropped by a third over the last decade as power generation also fell.

Duke operates its plants "within EPA and state regulatory limits that are designed to protect public health and the environment," she said.

After Gibson came a stop at plants in Kentucky. Then back over the Ohio River into Indiana to see the looming, 1,038-foot stack at Rockport, tied for 10th-largest coal plant in the country.

Owner American Electric Power (AEP) was sued in 1999 by the EPA, environmental groups and eight states (Indiana not among them) over its emissions at coal plants. As part of the 2007 settlement (https://www.aep.com/newsroom/newsreleases/?id=1411), in which AEP did not admit any violations, the company was to have installed pollution controls on one Rockport unit by 2017 and on the other by 2019. But a 2013 rework (https://www.epa.gov/sites/production/files/2015-01/documents/aep-cdmod3.pdf) of the settlement allowed the company to push that off another eight to nine years—in the meantime installing less expensive, less effective controls—in exchange for retiring units at coal plants outside the region.

AEP spokeswoman Tammy Ridout said by email that Rockport "is among the most efficient power plants in the world, which means it uses less coal, and has fewer emissions, for each kilowatt of electricity generated." AEP, she added, has spent "hundreds of millions of dollars to reduce the emissions and environmental impact of the Rockport Plant," including controls to cut mercury releases by about 80 percent.

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sending more chemicals into the air in 2014 than all but eight other sites nationwide. It's also 35th for greenhouse gases. AES, hit with EPA violation notices for Petersburg in February (https://www.documentcloud.org/documents/3034125-IPL-NOV-February-5-2016.html) and last year (https://yosemite.epa.gov/r5/r5ard.nsf/fa120e741359b6cf8625759a00455537/86d0237ec94d200686257eff006b9201/$FILE/Indianapolis%20Power%20& said in a statement that it recently installed $450 million in pollution controls there, and "we comply with all environmental regulations."

Blair's tour ended seven miles southeast of Evansville. There, the Warrick power plant run by Alcoa sits near F.B. Culley, one of two coal plants owned by the locally based Vectren Corp., which also co-owns part of Warrick. Vectren says its fleet is among the best controlled in the Midwest. Alcoa, whose complex is the fourth in southwest Indiana to make both top 100 lists, said it closed its smelter there in March and is running its power plant less now as a result.

Blair paused at a cemetery overlooking the smokestacks.

"You know," he'd said earlier in the trip, "we're subsidizing the coal industry big time with our health."

'Incredibly Powerful' Utilities

Indiana utilities have influenced the state's power mix beyond building coal plants in the first place. They gave a thumbs-up (http://www.eenews.net/stories/1059995965) to ending mandatory state energy-efficiency targets, calling the program "very costly" for customers despite consumer-advocate support. They pressed for extra solar charges, contending that rooftop-solar customers shift costs (http://www.indystar.com/story/opinion/readers/2015/01/25/current-net-metering-system-unfair/22317479/) to everyone else because they aren't paying their fair share. (Some of the independent research on this national debate is in agreement (http://www.utilitydive.com/news/nevada-report-rooftop-solar-customers-shift-36m-in-annual-costs-to-other/424749/); much (https://www.brookings.edu/research/rooftop-solar-net-metering-is-a-net-benefit/) of it is not.)

The Indiana Energy Association says the state doesn't need mandatory energy efficiency or renewable energy targets—now common across the country—because its members are making so much progress voluntarily. Indiana ranked 42nd on the American Council for an Energy-Efficient Economy's most recent state scorecard (http://aceee.org/state-policy/scorecard). It ranked 24th last year for the share of electricity generated with wind or solar, far outstripped by top states—half of them in the Midwest.

Unless a state's regulatory structure accounts for it, energy efficiency dampens utility revenues. So does customer-generated power. Some of Indiana's utilities, including Evansville-based Vectren, specifically warn (https://www.sec.gov/Archives/edgar/data/1096385/000109638516000123/vvc10k2015doc.htm) investors that these options are a financial threat.

Consumer groups think the utilities—not the coal companies—make the most effective advocates for Indiana's energy status quo.

"They've always been an incredibly powerful voice in the General Assembly," said Julia Vaughn, policy director for Common Cause Indiana (http://www.commoncause.org/states/indiana/), and "they've drug their feet on any type of movement away from coal."

Electric utilities are among the largest corporate contributors to state elections in Indiana. They spent nearly 100 times as much as pro-environment groups in the past five years, and far more than mining companies, according to National Institute on Money in State Politics data.

Their state lobbying, which totals hundreds of thousands of dollars a year, includes spreading freebies around to legislators: dinners at McCormick & Schmick's, cocktails at Moe & Johnny's, rounds of golf, tickets to Indiana Pacers and Indianapolis Colts games. Utilities are also the biggest donors (http://www.worksfoundation.org/contributions/) to a state foundation that covers costs of economic-development travel for the governor (http://www.journalgazette.net/news/local/indiana/Pence-defies-EPA--pleasing-donors-8715563).

Among the top recipients of their contributions and gifts is state Rep. Heath VanNatter, vice chair of the House Utilities and Energy Committee. He voted for the solar bill utilities wanted. He put forth the amendment that ultimately killed the energy-efficiency program. VanNatter, a Republican who represents an area north of Indianapolis, did not respond to requests for comment.

The utilities say the transition away from coal is best handled at a measured pace. They're increasing their use of alternatives, but a post-coal Indiana is a "long, long ways into the future," said Maassel, president of the Indiana Energy Association (http://www.indianaenergy.org/), which opposes (http://www.indianaenergy.org/epas-clean-power-plan-mandate.html) the EPA's Clean Power Plan.

"In anything, generally speaking, the faster you do it, the more expensive it becomes," he said.

Maassel said more than 730,000 Indiana households have after-tax incomes under $30,000 and pay a sizable chunk of that for energy, so utilities are mindful of the cost of change.

"The existing facilities many times enjoy an economic advantage because they've been paid for to some level, and upgrading them with additional [pollution] controls … makes sense," Maassel said.

This reasoning galls Kerwin Olson. He's executive director of the Citizens Action Coalition (http://www.citact.org/), an Indianapolis consumer and

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Kerwin Olson and colleague Jennifer Washburn in Olson's office at Citizens Action Coalition in Indianapolis. The group is battling for a faster shift to clean energy in Indiana.
Jamie Smith Hopkins / The Center for Public Integrity

He's not talking about health and climate costs, though research suggests (http://www.mitpressjournals.org/doi/pdf/10.1162/DAED_a_00143) they make the true price of coal much higher. He means people's actual utility bills.

"If you're a utility company with a guaranteed rate of return and the more you spend, the more you make, you're going to choose the most expensive option," he said. "That'swhy we continue to rely almost exclusively on coal."

Olson said that while coal-plant pollution controls were once the cheapest option, that's no longer the case. Efficiency and wind aren't only cleaner but are also less expensive than coal, he said, while utility-scale solar is on par.

That's clearly the case for new construction (https://www.lazard.com/media/2390/lazards-levelized-cost-of-energy-analysis-90.pdf). Comparing piecemeal coal-plant retrofits to the alternatives is trickier, but David Schlissel with the Institute for Energy Economics and Financial Analysis, which advocates for reduced dependence on fossil fuels, said many coal plants are uneconomic even without additional controls.

Cheaper electricity from gas and renewables prevents them from selling as much to the grid as they once did. In states such as Indiana where utilities own the plants, he said, ratepayers take the hit.

Utility analyst Paul Patterson said power companies aren't necessarily wedded to coal—some are moving aggressively on renewables. But it's an industry that craves stability, said Patterson, with New York-based Glenrock Associates.

And in states that have staked out pro-coal positions, he said, "there may be a whole variety of political issues" at play. AEP tells investors in its most recent annual report (https://www.sec.gov/Archives/edgar/data/4904/000000490416000056/ye15aep10k.htm) that it wants to rely more on natural gas, energy efficiency and renewables "where there is regulatory support."

'Beyond Coal' in Coal Country

In southwest Indiana, a future without coal would unpredictably reorder industries and people's lives. Most of the state's 6,500 mining jobs are here. They're a small piece of the region's employment—about 2 percent—but their reach is widened by the truck drivers, suppliers and others whose jobs depend on coal. Mining—like utilities—also provides some of the best-paying work. Property taxes from the power plant owners boost small-town budgets.

At the United Mine Workers of America's old union hall in Boonville, 30 minutes from Evansville, a half-dozen retired coal miners gathered in June to talk about their anxieties—in particular their frustration that Congress had yet to vote on health and pension benefits endangered in the wake of coal-company bankruptcies. Some of the politicians loudly proclaiming themselves pro-coal are not beloved here.

All of these men worked at a Boonville surface mine that supplied a local coal plant and shut down in 1998, its closure blamed in part on the Clean Air Act amendments of 1990 (https://www.epa.gov/aboutepa/highlights-1990-clean-air-act-amendments). Marvin Bruner, who worked there 31 years, had to retire early and accept a smaller pension. Randal Underhill had to travel all over on construction jobs for power plants, living out of motels. David Hadley had to work in Indianapolis during the week and come home to his family on weekends.

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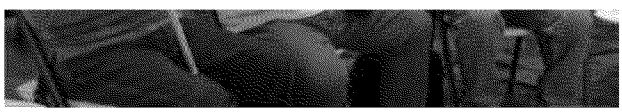

Marvin Bruner (center) talks to Wilber "Bud" Groeninger (left) and Bil Musgrave about the now-closed southwest Indiana coal mine where they worked for years.
Jamie Smith Hopkins / Center for Public Integrity

But in this group, opinions of air-pollution regulation are nuanced. They've seen coal companies open new mines in the area since the Clean Air Act amendments—non-union ones. Bil Musgrave, 60, who contracted a rare bile-duct cancer he links to working amid hazardous waste dumped in the Boonville mine, is a Sierra Club (http://www.sierraclub.org/) member.

He feels the tension between the benefits and problems coal brings. You can't be a miner without it, and yet Musgrave knows it's burned to make far more electricity than his region needs. The Toxics Release Inventory figures for a nearby coal plant, he said, show "an enormous amount of pollution."

Hadley, co-chair of the United Mine Workers' Indiana political action committee and a former state utility regulatory commissioner, wishes the industry had pushed full speed ahead on clean-technology innovations 15 years ago. What if carbon capture (http://www.ft.com/cms/s/2/88c187b4-5619-11e5-a28b-50226830d644.html#axzz4Gl3F7mp2) were economically viable and widely used today? What good does switching to natural gas do, he says, if it doesn't solve the carbon problem?

Hadley fears coal's window of opportunity is all but closed. That would leave transition away from it as the only option—"a transition with consequences."

Wendy Bredhold, a local Sierra Club representative, is a former Evansville city councilwoman who thinks about economic consequences, too. As the nation increasingly turns to renewables and big companies demand them, what will that mean for local growth prospects? Wouldn't coal workers do better, she says, if state officials helped people with the transition instead of fighting it?

The Sierra Club's Beyond Coal (http://content.sierraclub.org/coal/) campaign has notched successes (http://www.politico.com/agenda/story/2015/05/inside-war-on-coal-000002) across the country, preventing new plants from opening and convincing regulators that old plants weren't cost effective and should close. An Indianapolis coal plant it targeted switched to natural gas this year.

Now the group is campaigning in Evansville, trying to do this work in an area where, as Bredhold puts it, "coal runs generations deep." An Evansville event the Sierra Club (http://www.ecowatch.com/sierra-club-endorses-hillary-clinton-1891169205.html) organized this month drew 100 people but also attracted angry Facebook comments.

Bredhold sees health problems and the accelerating effects of climate change, and doesn't think she can afford to fail.

"We can't wait until these plants just can't run anymore," she said. "I want this transition to be as easy as it can be for my community, but it's one that has to happen."

Secondhand Pollution

The Cessna four-seater raced down a runway in Fort Meade, Maryland, loaded with equipment to measure ozone, carbon monoxide, sulfur dioxide and greenhouse gases. For more than two decades, the Maryland Department of the Environment has tracked where pollutants come from. Agency scientists and university researchers have worked together to prove that other states routinely send unwanted contributions their way.

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Jamie Smith Hopkins / The Center for Public Integrity

This isn't academic. Pollution drifting over state lines complicates local efforts to clean the air.

Indiana—280 miles from Maryland at its nearest point—is one of the culprits, according to both Maryland and EPA analyses.

Closer states have a bigger impact on Maryland, but the reach of Indiana's pollutants is impressive. An EPA analysis (https://www3.epa.gov/airtransport/CSAPR/whereyoulive.html) for a 2011 rule to reduce power-plant emissions that exacerbate interstate problems with fine particles and ozone showed Indiana significantly contributing to air pollution in 11 states as far northeast as Connecticut. Only Kentucky topped that, at 12.

Traveling pollution is why nine East Coast states petitioned the EPA in 2013 (http://www.dec.ny.gov/chemical/94770.html) to make nine other states—Indiana among them—do more on ozone. That petition is pending; some officials told the EPA (http://www.ct.gov/deep/lib/deep/air/176a/2016-04-18_-_section_176a_-_noi.pdf) this year that they plan to sue to force a decision.

Indiana and the other targeted states, in a 2014 letter (http://air.ky.gov/SiteCollectionDocuments/Petitioned%20state%20response%20letter2-14-2014.pdf) to the EPA, said they've made "tremendous progress" on air quality and the petition's arguments are out of date.

Dave Foerter, executive director of the Ozone Transport Commission, which advises the EPA on interstate smog problems, said meteorological conditions made for better years in 2013 and 2014. But generally, the wind blows Midwestern pollution to the Northeast, and that problem continues, he said.

"Indiana tends to throw emissions a long way," Foerter said.

That's less likely to come from its cars than its power plants, because the plants' smokestacks give pollutants the height they need to travel, according to Maryland regulators. New York, analyzing 2015 power plant releases, discovered that Indiana put out four times as much nitrogen oxides—a key ozone ingredient—for every megawatt-hour of electricity as New York did.

The Maryland Department of the Environment's Tad Aburn isn't suggesting car-heavy Maryland doesn't make its own pollution. It does, affecting three other states, according to the EPA's analysis. But Maryland's power-plant rules are stricter than federal ones, and Aburn says the agency's detective work shows the air improves when states work together.

"We need to do more," he said.

The Climate In Indiana

Climate change, like air pollution, requires group efforts to combat. But in Indiana—where industrial greenhouse gas emissions are second only to Texas in the U.S. and exceed those from Israel, Greece and 185 other countries (http://cdiac.ornl.gov/trends/emis/tre_coun.html)—the official position is inertia.

Pence once called climate change a "myth (http://web.archive.org/web/20010415121513/http:/mikepence.com/warm.html)" and now positions himself as a skeptic: "I think the science is very mixed on the subject," he told MSNBC (http://www.nbcnews.com/id/30641297/ns/msnbc-hardball_with_chris_matthews/t/hardball-chris-matthews-tuesday-may/%20-%20.V4fgQuuDGko#.V6T85riANBd) in 2009, an assertion he repeated until he said on the campaign trail this week that human activities have "some impact (http://www.politico.com/story/2016/09/mike-pence-climate-change-228799)" on climate. Not only is his state suing over the Clean Power Plan, but he also vowed (http://www.indystar.com/story/news/2016/02/20/pence-defy-coal-plant-rules/80674462/) that Indiana won't strategize to reduce greenhouse gases even if the rule does take effect. He's an enthusiastic supporter (http://www.indystar.com/story/news/2016/07/29/pence-addresses-bikers-ahead-alec-speech/87680158/) of the American Legislative Exchange Council, a group of companies and conservative lawmakers—popular in the Indiana state house—that has encouraged anti-climate initiatives (http://alecclimatechangedenial.org/anti-climate-change-agenda/).

Polling (https://environment.yale.edu/poe/v2014/) shows more than half of Hoosiers say climate change is indeed happening, though, and that includes some local officials. Jim Brainard, a Republican from the Indianapolis suburb of Carmel, is among the Indiana mayors who see economic opportunities in the shifting energy landscape and are taking action in their cities.

But a variety of Indiana residents think statewide efforts are crucial, and they're pressing officials to do something. What's driving them is the knowledge that the science isn't mixed (http://climate.nasa.gov/scientific-consensus/) on whether the world is warming (https://theconversation.com/we-have-almost-certainly-blown-the-1-5-degree-global-warming-target-63720?utm_source=Sailthru&utm_medium=email&utm_campaign=Issue:%202016-08-16%20Utility%20Dive%20Newsletter%20%5Bissue:6917%5D&utm_term=Utility%20Dive), whether humans are largely to blame and whether that's bad for us. The major point of debate among scientists now is just how bad it will be (https://www.sciencedaily.com/releases/2016/04/160407221445.htm)

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that urged Pence to draw on the educators' in-state expertise on climate and its impacts. It recommended a plan for "mitigation and adaptation strategies … to protect energy and transportation infrastructure, the health of the public and economic development."

"It actually wasn't intended to be political, but rather, 'You have a lot of resources right here in Indiana, in your back yard, people who are expert in this and can give you better advice than maybe you're receiving,'" said Filippelli, a professor of earth sciences at Indiana University-Purdue University Indianapolis.

He said he got "zero" response from the Pence administration, which also did not answer the Center for Public Integrity's questions about the matter.

Anita Wylie is trying a different tack. She's suing.

Wylie, an attorney who once worked for the Indiana Department of Environmental Management, is asking a trial court in Indianapolis to make the state develop a climate action plan. It's something two-thirds of states now have (http://www.c2es.org/us-states-regions/policy-maps/climate-action-plans), and it's what the academics' letter meant by mitigation and adaptation strategies.

A Pence spokeswoman did not respond to a question about the lawsuit, but the state argued in a motion to dismiss the case that it is not required to write a climate plan.

Wylie, now retired, says she is pursuing the lawsuit for her young grandsons and in memory of her father, a meteorologist deeply concerned about climate change.

"Indiana's my state," she said. "I'm embarrassstroed by the positions that the government's taken."

Hopkins reported this story with the support of the Dennis A. Hunt Fund for Health Journalism and the National Fellowship (http://www.centerforhealthjournalism.org/event/2016-national-health-journalism-fellowship), programs of the University of Southern California Center for Health Journalism (http://www.centerforhealthjournalism.org/).

Center for Public Integrity news developer Chris Zubak-Skees contributed to this story. Reposted with permission from our media associate The Center for Public Integrity (https://www.publicintegrity.org/2016/09/29/20248/america-s-super-polluters).

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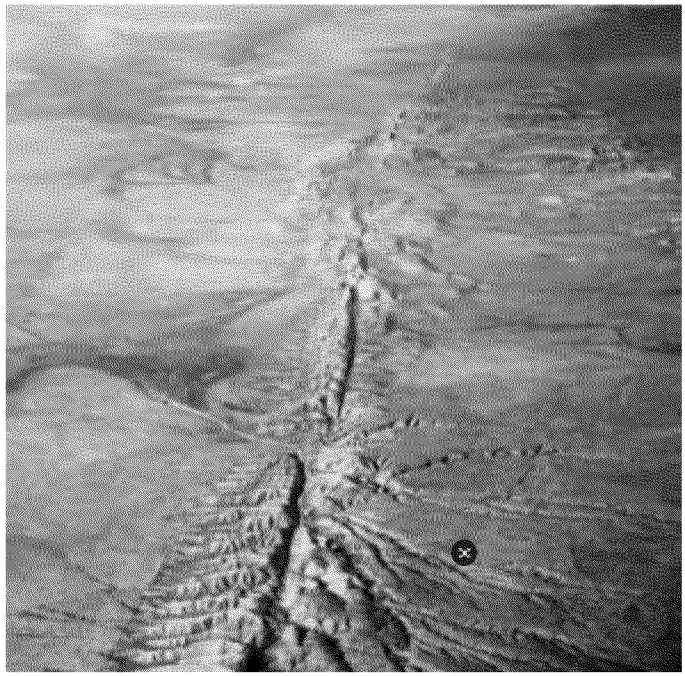

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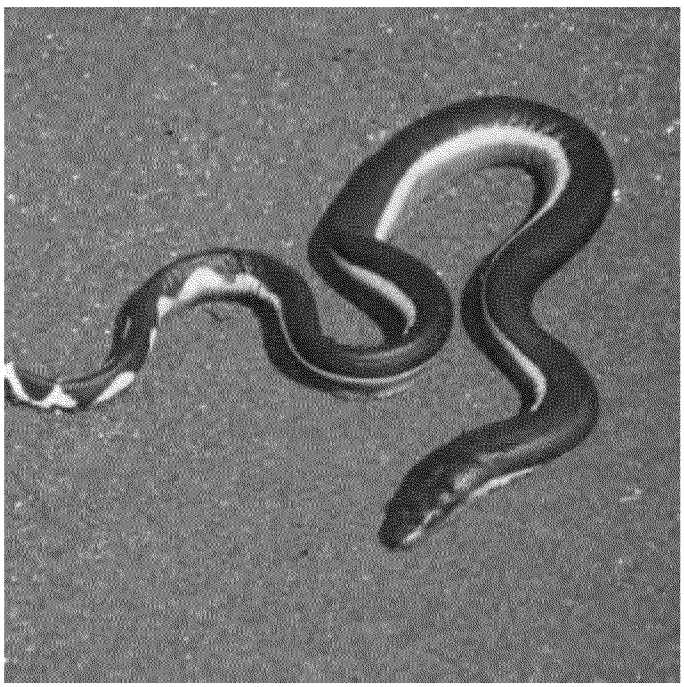

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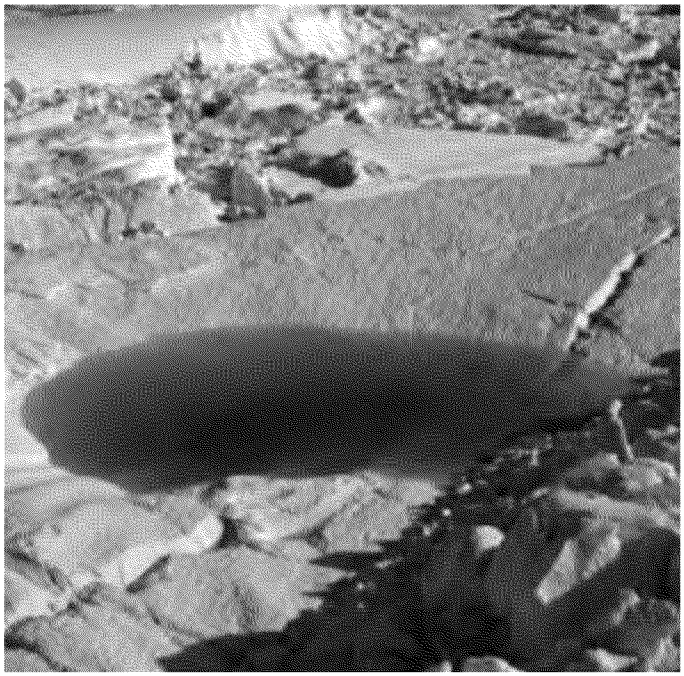

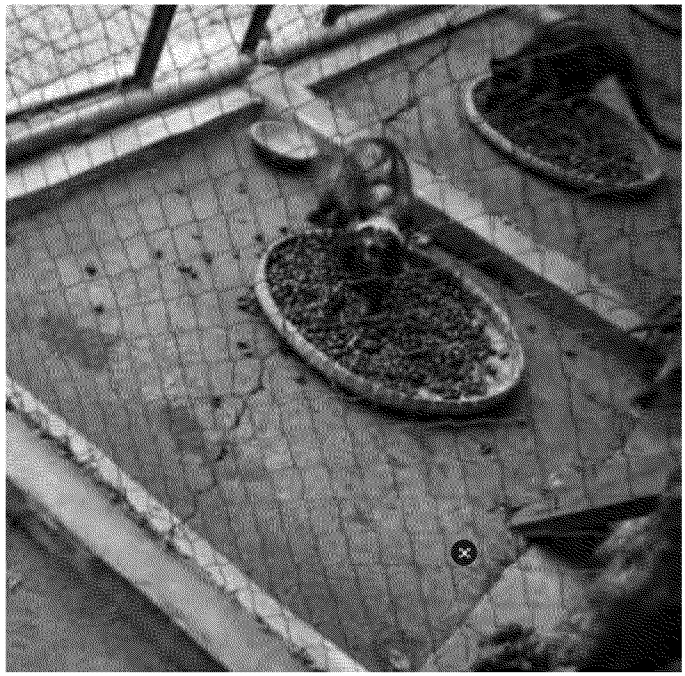

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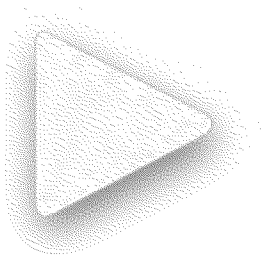
Farmers still feeling effects from Gold King Mine spill

Farmers still feeling effects from Gold King Mine spill



Devin Neeley

September 30, 2016 06:17 PM

SHIPROCK, N.M. — More than a year after the Gold King Mine Spill, there are still wide-reaching effects being felt, specifically to farmers who had water cut off before the crops could mature and who are still afraid to use the water.

"I didn't harvest anything, as you saw, my corn got so small, that was as big as it got I never got any full corn , no melon, no squash, I lost everything last year," said Earl Yazzie, who has farmed about 11 acres in Shiprock most of his life.

In September 2015, his half-grown corn was withering in the sun, his melons too small to sell or eat. Yazzie tried to keep everything growing watering with a can and 5-gallon bucket. That day, a truck had come full of water provided by the Shiprock chapter.

This year, Yazzie didn't even bother planting. About all that is growing on Yazzie's farm is tumbleweeds. The farm equipment is only good for shade for the dogs.

"I'm not going to use that river water again. Ever. Not once," Yazzie said.

He said he has not used irrigation water drawn from the San Juan, not even a drop since last August.

Plenty of farmers did not plant this year out of concerns that river water could carry sludge from the Gold King Mine spill into their fields. No harvest last year, no planting this year and worst of all, no money so far from the EPA.

"On the compensation front, we have net made much progress," said U.S. Sen. Tom Udall, D-New Mexico.

Udall met with the Yazzies and Navajo Nation officials to assure them that the New Mexico delegation is still working to get farmers reimbursed.

"From everything I have heard from the water, I don't know that I would use it," Udall said. "I think I would be in the same situation as Earl."

For Yazzie, it's not even just about the money.

"I would take the water over that, once I have clean water I'm satisfied," he said. "Once I have that, I can go back to what I love, which is farming."

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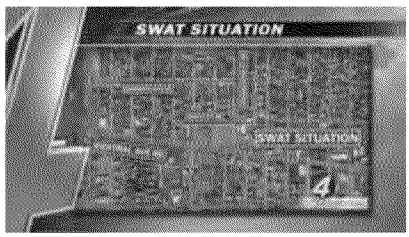

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Texas activists who lost one pipeline fight set sights on new battle

Demonstrators have been unable to halt the construction a local project – but they aren't giving up as the same company plans the Dakota Access pipeline

Tom Dart in Houston

Saturday 1 October 2016 08.30 EDT

It looks to Lori Glover "like a long snake going across the whole desert". For David Keller, it is "like having a very beautiful historic home and having someone run a bulldozer through the kitchen". And in Yolonda Blue Horse's view, it is another example of disrespect from an industry that does not care about native people.

Before the Dakota Access pipeline sparked continuing protests that led to national attention and an Obama administration intervention, a feisty group of activists in remote west Texas waged a long battle against the same company when it pressed ahead with plans to run a 143-mile natural gas pipeline to Mexico through some of the state's most pristine countryside.

The construction traffic, the diggers churning up ranchland and the serpentine sections of 42in pipe being placed along the route in preparation for their burial testify to their defeat, as do the fruitless legal challenges.

Activists held a march to show solidarity with the Dakota movement on Friday along the route in Alpine, a small town near the tourist magnet Marfa, a desert city 220 miles south-east of El Paso. It was supported by the American Indian Movement of Central Texas (AIMCTX), whose members have demonstrated against the Dakota pipeline outside the Dallas headquarters of Energy Transfer Partners, the company behind both schemes.

The Standing Rock Sioux tribe fears that the Dakota pipeline could damage their water supply. "This has really opened a lot of people's eyes – pipelines everywhere – and has brought to life the number of pipelines that are bursting or leaking throughout the United States," said Blue Horse, of the AIMCTX.

"My opinion is this – I think Kelcy Warren figures that my people, Native American people, are on the bottom of the totem pole when it comes to being a voice or being recognised at anything," she said.

Warren is the billionaire CEO of Energy Transfer and he has amassed wealth and power as the mastermind of a vast pipeline network. According to Bloomberg: "Long considered a visionary in the energy infrastructure space, Warren made deals during the shale boom to piece together a 71,000-mile (114,239km) oil-and-gas superhighway that spans the country."

His political networking is also impressive. The 60-year-old was a major donor to the election campaign of Texas governor Greg Abbott. Last year, Abbott appointed Warren to a seat on the Texas Parks and

Wildlife Commission, the board of a state department whose mission is "to manage and conserve the natural and cultural resources of Texas".

For the Trans-Pecos Pipeline, which is expected to be finished next year, Energy Transfer linked up with a company controlled by Carlos Slim, Mexico's richest man.

On paper, perhaps, it did not seem likely to cause a fuss: relatively small and going through a sparsely populated area known as the Big Bend. Its proponents argue that it brings jobs and will reduce Mexico's dependence on coal.

But it slices through a region of natural beauty beloved by its residents precisely because it was untouched by the large-scale oil and gas developments that dominate much of a state with about 432,000 miles of pipeline.

And, critics charge, there is no real national benefit, since the gas is headed for Mexico, to take advantage of recent energy industry reforms there.

As well as environmental and economic concerns, the fight against the Trans-Pecos pipeline also spotlighted Texas's oil and gas industry regulations – or rather, the lack of them. Until recently, companies were able to assert their pipelines were for the public good simply by checking a box on a one-page form filed with the relevant state agency, the railroad commission. In essence, the commission registers new pipelines without judging whether they are needed or whether the route is appropriate.

Once they have "common carrier" status, the company can use the power of "eminent domain" to route through private property over the objections of landowners, who have to resort to court action if they cannot come to an agreement with the company.

"We're sick of being pushed around," said Glover, one of the organisers of Friday's march. "Our community rights, our individual rights, our property rights, our environmental rights, are all very important and we need to live in a country that values those things.

"If you look at a map of the United States and all the pipelines, it's crazy. Pipelines cover our country and they're just making more and more and it's at a frantic pace. And I don't think that they can do that safely, to be in such a rush to get all the natural resources out and then do that in a way that guarantees the safety of the community and the environment. It's not possible."

Putting the brakes on the energy industry is a tall order in a Republican-dominated state whose politicians are relentlessly supportive of oil and gas concerns. When Denton, near Dallas, outlawed fracking inside city limits, state lawmakers responded last year by banning the ban.

"The deck was stacked against us from the start. We really didn't stand a chance," said Keller, a local archaeologist and member of the Big Bend Conservation Alliance. "I think it's just capitalism gone wild; I'm not a socialist at all."

He lamented that rather than modifying the route by 50 or 100 metres, the diggers "ploughed right through" what he described as a "very significant" historical site that is between 5,000 and 12,000 years old and could contain notable Native American artefacts - Trap Spring, which he described as now looking like a home without a kitchen.

An Energy Transfer spokeswoman denied the allegation and said: "We adjusted the route so that this site is not within the boundaries of our right-of-way for this project. There are no archeological sites within

the pipeline right-of-way along the entire route."

She added that the pipeline "will meet or exceed where possible all state and federal safety standards".

Activists worry that the Trans-Pecos pipeline will be the first of many. "It's the camel's nose under the tent. It's basically the first of a much larger set of enabling infrastructure that will allow the industrialisation of this region," said another Alliance member, Coyne Gibson.

Last year a company pitched the idea of placing a nuclear waste storage facility in the region.

There have long been plans to build a major highway through the Big Bend, connecting Mexico to the oil-patch cities of Midland and Odessa and beyond. In September, Apache Corporation excitedly announced it has discovered a field in west Texas near the Davis Mountains that it dubbed Alpine High. It could potentially yield the equivalent of billions of barrels of oil.

"Pipelines beget pipelines, infrastructure begets infrastructure," said Keller. "Pipelines, as one landowner out here put it, they're just bait for other pipelines, and the oil and gas industry and that is the last thing we need here. This is the beginning of the destruction, the beginning of the end of the Big Bend, as I see it. It's the most damaging thing that's probably ever happened in the history of the region."

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